8/9/85 C8850-1A

Textile Organon

WORLD MAN-MADE FIBER SURVEY

Featured in this issue is our annual survey of the world man-made fiber industry. Our customary world directory of man-made fiber producers begins on page 118, the annual cellulosic fiber production and planned capacity survey begins on page 111, and the annual noncellulosic fiber production and planned capacity survey begins on page 107.

Historical world data for most of the tables that appear in this issue can be found in the ***Textile Organon Base Book*** of January 1962 and the following issues of the ***Textile Organon:*** June 1966, 1970, and 1979-1984.

As in the past, all data in this issue are in *metric tons* except for the U.S. data on pages 141-147. The tables on pages 104 and 107-117 will be published in the July issue showing data in *millions of pounds*.

Import-export data used to tabulate net available supply by country are not complete at this time. As a result, when these data are obtained, the 1984 net available supply table will be published in the ***Organon***.

ACKNOWLEDGEMENTS

This annual world man-made fiber survey would not have been possible without the help and cooperation of more than 170 foreign man-made fiber associations, producing companies and individuals, as well as the U.S. Foreign Service posts reporting through the Office of Textiles and Apparel, Domestic and International Business Administration and the U.S. Department of Commerce. Their efforts are greatly appreciated.

TABLE 1: WORLD PRODUCTION OF CERTAIN TEXTILE FIBERS

THOUSAND METRIC TONS & *Percent*

TYPE OF FIBER	1978	1979	1980	1981	1982	1983	1984
CELLULOSIC FIBERS (from page 114)							
YARN + MONOFILAMENTS	1167	1176	1161	1104	1025	1043	1038
STAPLE + TOW	2148	2195	2081	2100	1917	1979	
TOTAL CELLULOSIC	**3315**	**3371**	**3242**	**3204**	**2942**	**3022**	**3078**
NONCELLULOSIC FIBERS except Olefin (from page 110)							
YARN + MONOFILAMENTS	4603	4889	4732	4809	4486	4855	5151
STAPLE + TOW	5431	5712	5744	6018	5654	6219	6742
TOTAL NONCELL. ABOVE	**10034**	**10601**	**10476**	**10827**	**10140**	**11074**	**11893**
TOTAL MAN-MADE ABOVE	**13349**	**13972**	**13718**	**14031**	**13082**	**14096**	**14971**
% of World Total	*48*	*47*	*47*	*45*	*44*	*47*	*45*
NATURAL FIBERS							
RAW COTTON	12897	10480	13991	15296	14639	14217	16479
RAW WOOL	1538	1576	1607	1626	1629	1641	1673
RAW SILK	51	55	56	57	55	55	55
TOTAL NATURAL ABOVE	**14486**	**15711**	**15654**	**16979**	**16323**	**15913**	**18207**
% of World Total	*52*	*53*	*53*	*55*	*56*	*53*	*55*
WORLD TOTAL ABOVE	**27835**	**29683**	**29372**	**31010**	**29405**	**30009**	**33178**
World Total %	*100*	*100*	*100*	*100*	*100*	*100*	*100*

The silk and man-made fiber data are on a calendar-year basis, while the figures for cotton and wool are on a seasonal basis.

MAN-MADE FIBERS: Data are from pages 110 and 114, as noted. Textile glass fiber and olefin production are not included.

COTTON: International Cotton Advisory Committee. Also see December 1984 *Organon*.

WOOL: Commonwealth Secretariat & The Wool Bureau, Inc. The data are on a scoured basis. Also see the December 1984 *Organon* issue.

SILK: International Silk Association, Food and Agriculture Organization of the United Nations.

Textile Organon

JUNE, 1985 — A MONTHLY REVIEW

Editor,
Rosemarie D. Frick

Publishing Headquarters:
Textile Economics Bureau, Inc.
101 Eisenhower Parkway
Roseland, NJ 07068
U.S.A.
Telephone: (201) 228-1107

ISSN 0040-5132

Copyright ©1985
Textile Economics Bureau, Inc.

TEXTILE ORGANON is published monthly. All rights reserved. This booklet may be reproduced in part if credit is given.

Subscription rates as of January 1985 (payable in U.S. dollars with order):

Item	U.S.A.	Other
Annually (1 year only)	125.00	187.50
Schools & Nonprofit	25.00	35.00
Single Issues:		
June	20.00	30.00
September	20.00	30.00
All Others	15.00	20.00

All issues will be sent to U.S. subscribers by first-class mail and those to all other countries by airmail.

Contents

FEATURES

World Man-Made Fiber Survey 104-140
- World Production of Certain Fibers 104
- Noncellulosic Fiber Production & Producing Capacity by Country 107-110
- Noncellulosic Fiber Production & Producing Capacity by Country 111-114
- Rayon Vs. Acetate Filament Yarn Production & Producing Capacity 115
- Noncellulosic Fiber Production & Producing Capacity by Fiber 116
- Glass Fiber Production & Producing Capacity 117
- Cigarette Tow Production 117
- Acetate Staple Production & Producing Capacity 117
- Olefin Fiber Production by Country 117
- **World Producer Directory** 118-137
- **World Ownership Listing** 137-140
- Number of Producing Plants 140

INDUSTRY REGULARS

Datagram 106

Quarterly Man-Made Fiber Data 141-142
- Filament Yarn Domestic Shipments 141
- Staple & Tow Domestic Shipments 142

Trade Barometer 143-146
- Man-Made Fiber Monthly Trade Balance Detail 143
- Monthly U.S. Man-Made Fiber Data 144-146
  - Imports by Country of Origin 144
  - Imports for Consumption by Fiber 145
  - Exports by Fiber 146

Selected U.S. Textile Fiber Data 147

ANNOUNCEMENT

The July & August issues of the ***Textile Organon*** will be combined into one issue, scheduled for release in mid-August.

DATAGRAM

WORLD FIBER PRODUCTION ON THE RISE

From 1978 to 1984, the World noncellulosic yarn and staple+tow production increased by almost 19%, from 10,034.4 thousand metric tons in 1978 to 11,893.2 thousand metric tons in 1984. During the same period, production of noncellulosic yarn rose 12% and staple+tow production grew by 24%. Major growth areas in production during that time have been recorded in:

- China, PRC, where production expanded by 413%, of which yarn rose 283% and staple+tow up almost 450%.
- Indonesia increased production by 123%.
- India grew over 161%, of which yarn rose by 198% and staple+tow increased by 115%.

In 1984, the World noncellulosic yarn and staple+tow production grew to 11,893 thousand metric tons, up 7½% over the 11,074 thousand metric tons produced in 1983. A small gain of 2% was realized in the cellulosic yarn and staple sector.

The noncellulosic staple+tow production rose by 8½% in 1984, from 6,219 thousand metric tons in 1983 to 6,742 thousand metric tons in 1984; and the noncellulosic yarn production moved up 6% to 5,151 thousand metric tons in 1984.

Major growth areas, in the noncellulosic sector, are in Other Africa, Asia and Oceania, where production increased by 25% in 1984.

The most significant production increases are noted in the following countries:

- China, PRC - increased by 75%.
- Indonesia - rose over 29%.
- India - up 20%.
- Taiwan - grew over 17%.
- Korea, Rep. of - increased over 12%.

Planned capacities, in 1985 over 1986, for both noncellulosic yarn and staple+tow are noteworthy in the following countries:

- Taiwan - will rise by 15%, of which yarn is to grow by 16% and staple+tow is expected to rise by 14%.
- Korea, Rep. of - is to increase by 10%.
- India - is expected to move up by 9%. The larger share of that will be in staple+tow, by 16%.
- China, PRC - combined capacity shall increase by 8%, with 13% for yarn and 6½% for staple+tow.

ENKA NEGOTIATIONS OK'D BY AKZO & BASF BOARD

The AKZO NV and BASF AG boards have approved the negotiations to acquire American Enka by Badische. American Enka is a subsidiary of AKZO NV and Badische is a subsidiary of BASF. The acquisition must still be approved by the U.S. Federal Trade Commission. (DNR 7/2/85)

TABLE 2A: WORLD NONCELLULOSIC FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY (EXCEPT OLEFIN)

THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION											
	1978			1979			1980			1981		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
WESTERN EUROPE												
AUSTRIA	0	30.4	30.4	0	29.3	29.3	0	25.4	25.4	0	18.7	18.7
BENELUX *	94.7	48.0	142.7	95.2	40.4	135.6	71.9	32.4	104.3	80.4	25.3	105.7
EIRE (IRELAND)	8.3	26.0	34.3	10.8	32.0	42.8	10.0	31.7	41.7	15.0	31.3	46.3
FINLAND	0.5	0	0.5	0.4	0	0.4	0.4	0	0.4	0.5	0	0.5
FRANCE	91.7	154.7	246.4	78.7	145.3	224.0	65.3	126.7	192.0	66.4	134.8	201.2
WEST GERMANY	326.0	403.4	729.4	338.0	421.5	759.5	317.7	402.4	720.1	320.7	431.5	752.2
GREECE	8.5	7.9	16.4	9.2	9.5	18.7	9.0	10.0	19.0	9.0	8.9	17.9
ITALY/MALTA	117.9	236.5	354.4	126.6	233.6	360.2	124.9	229.9	354.8	149.0	286.3	435.3
PORTUGAL	1.6	26.1	27.7	1.7	29.2	30.9	1.4	32.1	33.5	1.1	34.0	35.1
SPAIN	60.8	129.1	189.9	71.7	141.4	213.1	65.0	136.7	201.7	72.3	168.9	241.2
SWITZERLAND	49.8	33.4	83.2	49.1	30.0	79.1	60.7	23.7	84.4	57.1	27.9	85.0
TURKEY	22.1	60.6	82.7	30.0	77.0	107.0	28.0	70.0	98.0	32.4	76.3	108.7
UNITED KINGDOM	180.9	225.2	406.1	171.4	209.7	381.1	125.9	161.7	287.6	100.9	148.4	249.3
TOTAL WESTERN EUROPE	**962.8**	**1381.3**	**2344.1**	**982.8**	**1398.9**	**2381.7**	**880.2**	**1282.7**	**2162.9**	**904.8**	**1392.3**	**2297.1**
EASTERN EUROPE												
ALBANIA	0	0	0	0	0	0	0	0	0	0	0	0
BULGARIA	13.0	33.0	46.0	13.0	35.0	48.0	17.3	37.0	54.3	17.5	39.0	56.5
CZECHOSLOVAKIA	49.0	25.0	74.0	50.0	22.0	72.0	54.0	22.4	76.4	52.5	37.5	90.0
GERMANY, D.R.	53.5	74.0	127.5	54.6	77.9	132.5	57.0	82.0	139.0	56.0	78.0	134.0
HUNGARY	3.3	15.4	18.7	3.2	14.8	18.0	5.8	14.7	20.5	7.0	14.3	21.3
POLAND	85.2	66.9	152.1	87.4	65.9	153.3	94.5	68.5	163.0	78.7	40.2	118.9
ROMANIA	30.0	100.0	130.0	35.0	105.0	140.0	33.0	103.0	136.0	39.5	114.5	154.0
U.S.S.R.	275.0	200.0	475.0	273.0	203.0	476.0	319.0	231.0	550.0	311.8	261.0	572.8
YUGOSLAVIA	17.0	28.0	45.0	21.0	35.0	56.0	23.0	40.0	63.0	24.0	41.0	65.0
TOTAL EASTERN EUROPE	**526.0**	**542.3**	**1068.3**	**537.2**	**558.6**	**1095.8**	**603.6**	**596.6**	**1202.2**	**587.0**	**625.5**	**1212.5**
TOTAL EUROPE	**1488.8**	**1923.6**	**3412.4**	**1520.0**	**1957.5**	**3477.5**	**1483.8**	**1881.3**	**3365.1**	**1491.8**	**2017.8**	**3509.6**

Y means yarn + monofilaments.
S means staple + tow + fiberfill.
a. Includes Belgium, Netherlands and Luxembourg.

ACTUAL PRODUCTION									PRODUCING CAPACITY					
1982			1983			1984			1985			1986		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
0	16.2	16.2	0	18.0	18.0	0	18.1	18.1	0	21.0	21.0	0	21.0	21.0
70.6	19.2	89.8	61.9	21.3	83.2	62.5	23.0	85 5	96.1	54.0	150.1	93.5	59.0	152.5
12.3	28.0	40.3	11.0	32.0	43.0	11.5	37.5	49.0	12.0	44.5	56.5	12.0	44.5	56.5
0.5	0	0.5	- 0.5	0	0.5	0.5	0	0.5	0.6	0	0.6	0.6	0	0.6
64.8	125.3	190.1	63.2	135.1	198.3	60.2	133.6	193.8	86.0	133.0	219.0	86.0	133.0	219.0
324.0	377.9	701.9	332.1	425.5	757.6	349.7	421.3	771.0	391.1	446.0	837.1	403.1	446.0	849.1
8.5	9.3	17.8	9.0	10.0	19.0	9.0	10.0	19.0	17.7	12 0	29.7	17.7	12.0	29.7
148.7	280.0	428.7	142.5	312.6	455.1	148.5	370.4	518.9	189.7	429.0	618.7	189.7	414.0	603.7
0.9	38.0	38.9	3.0	39.0	42.0	3.0	40.0	43.0	3.5	49.0	52.5	3.5	49.0	52.5
73.6	157.7	231.3	64.6	165.2	229.8	69.4	159.3	228.7	100.1	222.0	322.1	100.1	222.0	322.1
53.4	27.0	80.4	58.0	28.0	86.0	69.7	28.3	98.0	73.5	31.0	104.5	76.5	31.0	107.5
45.1	90.2	135.3	48.0	101.5	149.5	52.5	108.7	161.2	71.0	160.0	231.0	121.0	180.0	301.0
66.5	137.8	204.3	80.0	147.7	227.7	81.5	154.0	235.5	111.0	225.0	336.0	111.0	195.0	306.0
868.9	**1306.6**	**2175.5**	**873.8**	**1435.9**	**2309.7**	**918.0**	**1504.2**	**2422.2**	**1152.3**	**1826.5**	**2978.8**	**1214.7**	**1806.5**	**3021.2**
0	0	0	0	0	0	0	0	0	0	10.0	10.0	2.0	10.0	12.0
17.5	35.0	52.5	18.0	42.0	60.0	18.0	43.8	61.8	36.0	67.0	103.0	50.0	77.0	127.0
65.0	37.0	102.0	67.0	38.0	105.0	67.0	38.0	105.0	77.0	75.0	152.0	77.0	75.0	152.0
55.0	78.9	133.9	62.0	82.0	144.0	61.0	83.0	144.0	85.0	95.0	180.0	85.0	95.0	180.0
7.6	12.7	20.3	7.6	13.2	20.8	8.0	16.6	24.6	9.0	43.0	52.0	9.0	43.0	52.0
75.4	53.1	128.5	85.4	62.3	147.7	87.4	67.0	154.4	122.0	86.0	208.0	122.0	86.0	208.0
39.0	112.0	151.0	41.0	114.0	155.0	48.0	118.5	166.5	70.0	144.0	214.0	70.0	144.0	214.0
325.8	268.0	593.8	345.0	277.0	622.0	357.0	287.0	644.0	541.0	424.0	965.0	591.0	424.0	1015.0
22.0	40.5	62.5	25.0	44.0	69.0	24.5	52.0	76.5	49.0	87.5	136.5	61.0	87.5	148.5
607.3	**637.2**	**1244.5**	**651.0**	**672.5**	**1323.5**	**670.9**	**705.9**	**1376.8**	**989.0**	**1031.5**	**2020.5**	**1067.0**	**1041.5**	**2108.5**
1476.2	**1943.8**	**3420.0**	**1524.8**	**2108.4**	**3633.2**	**1588.9**	**2210.1**	**3799.0**	**2141.3**	**2858.0**	**4999.3**	**2281.7**	**2848.0**	**5129.7**

TABLE 2B: WORLD NONCELLULOSIC FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY (EXCEPT OLEFIN) (Continued)

COUNTRY	ACTUAL PRODUCTION											
	1978			1979			1980			1981		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
U.S.A.	**1466.8**	**1751.2**	**3218.0**	**1594.5**	**1889.2**	**3483.7**	**1411.6**	**1830.5**	**3242.1**	**1438.8**	**1836.7**	**3275.5**
OTHER AMERICAS												
ARGENTINA	22.2	17.0	39.2	29.6	22.6	52.2	21.3	12.9	34.2	16.0	8.3	24.3
BOLIVIA	0	0	0	0	0	0	0	0	0	0	0	0
BRAZIL	105.7	74.5	180.2	122.5	91.4	213.9	136.4	95.0	231.4	115.0	86.8	201.8
CANADA	72.2	50.9	123.1	73.1	48.5	121.6	74.0	48.0	122.0	65.9	40.0	105.9
CHILE	4.4	1.5	5.9	5.0	2.4	7.4	5.0	2.5	7.5	5.0	2.5	7.5
COLOMBIA	33.2	7.8	41.0	28.7	8.0	36.7	28.2	10.9	39.1	32.8	11.2	44.0
COSTA RICA	2.0	0	2.0	2.0	0	2.0	3.0	0	3.0	3.2	0	3.2
ECUADOR	2.5	0	2.5	3.4	0	3.4	3.5	0	3.5	3.5	0	3.5
GUATEMALA	0	0	0	+	0	+	0	0	0	0	0	0
MEXICO	123.4	75.9	199.3	136.1	93.0	229.1	137.0	102.4	239.4	133.0	111.0	244.0
PERU	5.6	20.5	26.1	7.0	21.0	28.0	10.5	22.5	33.0	10.1	21.1	31.2
URUGUAY	1.1	+	1.1	1.1	2.4	3.5	1.1	2.6	3.7	0.9	2.1	3.0
VENEZUELA	11.5	5.5	17.0	11.7	6.1	17.8	11.5	6.0	17.5	7.5	6.0	13.5
TOTAL OTHER AMERICAS	**383.8**	**253.6**	**637.4**	**420.2**	**295.4**	**715.6**	**431.5**	**302.6**	**734.3**	**392.9**	**289.0**	**681.9**
JAPAN	**629.0**	**747.0**	**1376.0**	**631.2**	**731.9**	**1363.1**	**625.7**	**731.1**	**1356.8**	**607.0**	**721.8**	**1328.8**
OTHER AFRICA, ASIA & OCEANIA												
AUSTRALIA/NZ	18.1	1.1	19.2	16.4	0.5	16.9	12.0	+	12.0	10.0	0	10.0
BANGLADESH	0.5	0	0.5	0.2	0	0.2	0.3	0	0.3	0.2	0	0.2
CHINA, P.R.C.	30.0	106.6	136.6	36.0	128.0	164.0	43.0	205.0	248.0	55.0	292.0	347.0
EGYPT	0.8	0.4	1.2	1.5	0.4	1.9	1.8	5.0	6.8	2.0	5.0	7.0
INDIA	32.8	25.7	58.5	35.8	27.8	63.6	39.7	30.8	70.5	50.9	39.8	90.7
INDONESIA	21.3	45.4	66.7	22.7	50.3	73.0	41.5	53.9	95.4	46.4	55.1	101.5
IRAN	9.0	+	9.0	5.0	0	5.0	6.0	0	6.0	10.0	10.0	20.0
ISRAEL	8.9	6.2	15.1	9.9	6.4	16.3	10.5	6.6	17.1	10.5	6.8	17.3
KENYA	0	0	0	+	0	+	1.0	0	1.0	1.0	0	1.0
KOREA, REP OF	208.0	224.5	432.5	237.2	240.1	477.3	255.2	281.2	536.4	284.0	326.4	610.4
MALAYSIA	0	33.0	33.0	0	35.0	35.0	0	36.0	36.0	0	35.0	35.0
NIGERIA	+	3.0	3.0	3.0	4.0	7.0	2.5	2.5	5.0	2.7	4.0	6.7
PAKISTAN	1.9	0	1.9	2.0	0	2.0	1.5	0	1.5	1.5	0	1.5
PHILIPPINES	16.0	8.6	24.6	25.0	11.6	36.6	30.0	14.0	44.0	32.0	14.0	46.0
SOUTH AFRICA	29.4	16.5	45.9	32.2	19.5	51.7	33.5	20.0	53.5	32.6	20.0	52.6
SRI LANKA	0	0	0	0	0	0	0	0	0	0.8	0	0.8
TAIWAN	223.5	240.7	464.2	256.8	264.5	521.3	264.6	293.2	557.8	298.2	288.8	587.0
TANZANIA	0	0	0	0	0	0	0	0	0	0	0	0
THAILAND	34.7	43.6	78.3	39.7	49.9	89.6	36.5	49.5	86.0	40.4	56.3	96.7
TOTAL OTHER A., A. & O.	**634.9**	**755.3**	**1390.2**	**723.4**	**838.0**	**1561.4**	**779.6**	**997.7**	**1777.3**	**878.2**	**1153.2**	**2031.4**
TOTAL WORLD	**4603.4**	**5431.0**	**10034.4**	**4889.4**	**5712.0**	**10601.4**	**4732.3**	**5743.4**	**10475.7**	**4808.7**	**6018.5**	**10827.2**

ACTUAL PRODUCTION									PRODUCING CAPACITY					
1982			1983			1984			1985			1986		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
1121.4	**1481.7**	**2603.1**	**1293.5**	**1715.0**	**3008.5**	**1259.8**	**1677.1**	**2936.9**	**1515.4**	**2091.0**	**3606.4**	**1545.8**	**2085.1**	**3630.9**
18.1	11.9	30.0	24.2	16.0	40.2	25.0	19.6	44.6	46.2	32.0	78.2	46.2	32.0	78.2
1.0	0	1.0	2.0	0	2.0	0	0	0	5.0	0	5.0	5.0	0	5.0
116.0	82.1	198.1	105.7	79.6	185.3	118.2	97.6	215.8	164.7	121.9	286.6	164.7	123.1	287.8
52.0	45.0	97.0	59.3	53.0	112.3	62.3	59.0	121.3	86.9	74.0	160.9	86.9	74.0	160.9
4.6	0.8	5.4	4.7	1.0	5.7	5.4	1.1	6.5	10.7	6.0	16.7	10.7	6.0	16.7
26.0	12.0	38.0	28.0	12.0	40.0	30.0	12.0	42.0	57.4	15.0	72.4	57.4	15.0	72.4
3.5	0	3.5	3.5	0	3.5	3.5	0	3.5	8.0	0	8.0	8.0	0	8.0
4.0	0	4.0	4.0	0	4.0	4.0	0	4.0	7.0	0	7.0	7.0	7.3	14.3
0	0	0	0	0	0	0	0	0	2.0	0	2.0	2.0	0	2.0
122.1	115.4	237.5	132.2	131.0	263.2	137.2	148.0	285.2	192.2	192.2	384.4	202.9	192.2	395.1
10.4	29.4	39.8	11.5	29.4	40.9	12.0	29.4	41.4	16.0	38.5	54.5	16.0	38.5	54.5
0.9	2.3	3.2	1.3	3.7	5.0	1.3	3.4	4.7	2.5	4.0	6.5	2.5	4.0	6.5
8.2	3.6	11.8	9.7	4.0	13.7	10.2	5.5	15.7	13.2	7.8	21.0	13.2	7.8	21.0
366.8	**302.5**	**669.3**	**386.1**	**329.7**	**715.8**	**409.1**	**375.6**	**784.7**	**611.8**	**491.4**	**1103.2**	**622.5**	**499.9**	**1122.4**
596.2	**708.2**	**1304.4**	**597.3**	**720.9**	**1318.2**	**634.0**	**735.3**	**1369.3**	**773.0**	**881.0**	**1654.0**	**773.0**	**881.0**	**1654.0**
14.5	0	14.5	14.5	1.0	15.5	14.5	1.0	15.5	26.5	1.5	28.0	26.5	1.5	28.0
0.2	0	0.2	0.2	5.0	5.2	0.3	10.0	10.3	0.9	36.0	36.9	0.9	36.0	36.9
67.0	302.0	369.0	75.0	325.0	400.0	115.0	586.0	701.0	230.0	785.0	1015.0	260.0	835.0	1095.0
3.3	10.6	13.9	3.5	12.6	16.1	4.0	14.6	18.6	9.0	59.6	68.6	9.0	67.6	76.6
62.0	44.2	106.2	87.2	40.4	127.6	97.8	55.2	153.0	152.5	162.1	314.6	159.4	184.1	343.5
60.9	55.2	116.1	60.5	54.5	115.0	75.5	73.3	148.8	95.0	112.0	207.0	111.0	112.0	223.0
13.0	15.0	28.0	18.0	22.0	40.0	18.0	23.0	41.0	51.7	37.7	89.4	51.7	37.7	89.4
11.5	7.0	18.5	11.6	7.0	18.6	12.4	7.0	19.4	16.0	7.5	23.5	16.0	7.5	23.5
1.0	0	1.0	3.1	0	3.1	4.5	1.0	5.5	11.0	5.4	16.4	14.0	5.4	19.4
301.4	311.0	612.4	336.3	327.6	663.9	369.3	376.9	746.2	380.4	381.5	761.9	420.4	421.5	841.9
0	32.0	32.0	0	35.0	35.0	0	35.5	35.5	0	37.8	37.8	0	37.5	37.5
1.2	1.1	2.3	2.5	2.5	5.0	3.0	3.0	6.0	5.0	5.0	10.0	5.0	5.0	10.0
5.1	6.9	12.0	9.3	12.0	21.3	13.9	20.3	34.2	19.4	66.0	85.4	27.5	66.0	93.5
35.0	15.0	50.0	37.0	16.0	53.0	37.0	16.0	53.0	43.0	18.0	61.0	43.0	18.0	61.0
35.0	20.0	55.0	36.0	21.0	57.0	36.0	21.0	57.0	51.0	30.0	81.0	53.0	30.0	83.0
1.0	0	1.0	1.0	0	1.0	1.0	0	1.0	2.7	0	2.7	2.7	0	2.7
280.8	350.1	630.9	323.4	414.0	737.4	417.9	448.0	865.9	505.0	550.0	1055.0	585.0	625.0	1210.0
1.0	0	1.0	2.0	0	2.0	2.0	0	2.0	5.0	0	5.0	5.0	0	5.0
31.1	48.0	79.1	32.0	50.0	82.0	37.0	52.4	89.4	74.0	65.3	139.3	74.0	65.3	139.3
925.0	**1218.1**	**2143.1**	**1053.1**	**1345.6**	**2398.7**	**1259.1**	**1744.2**	**3003.3**	**1678.1**	**2360.4**	**4038.5**	**1864.1**	**2555.1**	**4419.2**
4485.6	**5654.3**	**10139.9**	**4854.8**	**6219.6**	**11074.4**	**5150.9**	**6742.3**	**11893.2**	**6719.6**	**8681.8**	**15401.4**	**7087.1**	**8869.1**	**15956.2**

TABLE 3A: WORLD CELLULOSIC FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY

THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION											
	1978			1979			1980			1981		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
WESTERN EUROPE												
AUSTRIA	11.3	96.0	107.3	12.0	98.8	110.8	15.3	100.6	115.9	15.6	107.9	123.5
BELGIUM-NETHERLANDS	36.0	23.6	59.6	36.1	26.9	63.0	37.4	22.0	59.4	38.3	14.6	52.9
FINLAND	1.2	42.8	44.0	1.2	48.0	49.2	0.6	47.2	47.8	0	46.6	46.6
FRANCE	19.3	55.2	74.5	18.5	58.9	77.4	16.4	49.6	66.0	11.0	42.9	53.9
WEST GERMANY	59.7	49.0	108.7	58.1	50.0	108.1	65.2	46.0	111.2	65.0	50.0	115.0
GREECE	7.2	0	7.2	7.2	0	7.2	7.2	0	7.2	7.2	0	7.2
ITALY	39.3	46.9	86.2	38.4	39.0	77.4	36.6	27.5	64.1	35.1	24.4	59.5
NORWAY	0	28.4	28.4	0	29.3	29.3	0	28.4	28.4	0	28.4	28.4
PORTUGAL	2.1	1.2	3.3	2.5	1.7	4.2	2.7	0.7	3.4	2.9	0.3	3.2
SPAIN	13.8	46.6	60.4	12.6	45.3	57.9	12.8	40.1	52.9	12.6	37.8	50.4
SWEDEN	0	36.9	36.9	0	36.9	36.9	0	34.9	34.9	0	34.7	34.7
SWITZERLAND	4.1	0	4.1	3.3	0	3.3	1.8	0	1.8	+	0	+
TURKEY	0.3	4.0	4.3	0.3	6.0	6.3	0.3	5.0	5.3	0.3	5.0	5.3
UNITED KINGDOM	59.7	124.4	184.1	59.2	139.2	198.4	36.7	109.3	146.0	27.0	102.4	129.4
TOTAL WESTERN EUROPE	**254.0**	**555.0**	**809.0**	**249.4**	**580.0**	**829.4**	**233.0**	**511.3**	**744.3**	**215.0**	**495.0**	**710.0**
EASTERN EUROPE												
BULGARIA	3.2	27.8	31.0	3.2	30.0	33.2	3.3	33.0	36.3	4.3	34.7	39.0
CZECHOSLOVAKIA	21.5	49.5	71.0	22.0	36.0	58.0	19.8	34.9	54.7	18.2	36.0	54.2
GERMANY, D.R.	34.0	129.2	163.2	35.0	130.0	165.0	36.5	132.0	168.5	37.0	132.0	169.0
HUNGARY	0	9.0	9.0	0	8.6	8.6	0	9.0	9.0	0	7.5	7.5
POLAND	28.0	65.4	93.4	27.2	56.6	83.8	25.4	61.0	86.4	19.5	44.4	63.9
ROMANIA	9.5	53.0	62.5	9.7	55.0	64.7	9.5	54.0	63.5	9.6	55.0	64.6
USSR	300.0	335.0	635.0	298.0	337.0	635.0	305.0	345.0	650.0	300.0	345.5	645.5
YUGOSLAVIA	15.0	57.0	72.0	15.5	58.0	73.5	15.0	58.0	73.0	15.0	58.0	73.0
TOTAL EASTERN EUROPE	**411.2**	**725.9**	**1137.1**	**410.6**	**711.2**	**1121.8**	**414.5**	**726.9**	**1141.4**	**403.6**	**713.1**	**1116.7**
TOTAL EUROPE	**665.2**	**1280.9**	**1946.1**	**660.0**	**1291.2**	**1951.2**	**647.5**	**1238.2**	**1885.7**	**618.6**	**1208.1**	**1826.7**

Y means yarn + monofilaments.
S means staple + tow + fiberfill.
These totals do not include data for the Indonesian pilot plant nor production of cellulosic fibers in North Korea.
Production and producing capacity by country, divided as between rayon and acetate yarn, is given on page 116. Also note page 117 for data on production of acetate staple and cigarette tow.

ACTUAL PRODUCTION									PRODUCING CAPACITY					
1982			1983			1984			1985			1986		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
13.8	100.8	114.6	11.4	109.7	121.1	14.8	114.0	128.8	15.4	113.0	128.4	15.4	113.0	128.4
38.1	8.9	47.0	41.1	6.1	47.2	41.1	0	41.1	43.9	0	43.9	43.9	0	43.9
0	53.1	53.1	0	57.6	57.6	0	58.0	58.0	0	61.0	61.0	0	61.0	61.0
8.6	36.9	45.5	8.4	29.5	37.9	7.5	19.0	26.5	10.0	20.0	30.0	10.0	20.0	30.0
61.0	50.0	111.0	59.0	55.0	114.0	66.0	55.0	121.0	68.0	55.0	123.0	68.0	55.0	123.0
7.2	0	7.2	6.3	0	6.3	6.0	0	6.0	7.5	0	7.5	7.5	0	7.5
31.6	14.2	45.8	29.3	0	29.3	30.6	0	30.6	41.0	0	41.0	41.0	0	41.0
0	20.0	20.0	0	0	0	0	0	0	0	0	0	0	0	0
3.1	0	3.1	3.5	0	3.5	3.5	0	3.5	4.0	0	4.0	4.0	0	4.0
11.3	31.8	43.1	10.5	21.5	32.0	7.2	26.1	33.3	20.5	35.0	55.5	20.5	35.0	55.5
0	38.0	38.0	0	39.3	39.3	0	40.1	40.1	0	45.0	45.0	0	45.0	45.0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.3	5.3	5.6	0.3	4.0	4.3	0.3	4.5	4.8	0.5	8.0	8.5	0.5	8.0	8.5
24.0	89.2	113.2	25.0	115.2	140.2	21.0	106.2	127.2	32.5	116.0	148.5	32.5	116.0	148.5
196.0	**448.2**	**647.2**	**194.8**	**437.9**	**632.7**	**198.0**	**422.9**	**620.9**	**243.3**	**453.0**	**696.3**	**243.3**	**453.0**	**696.3**
4.0	34.0	38.0	4.1	35.0	39.1	4.1	37.1	41.2	5.0	42.0	47.0	5.0	42.0	47.0
19.6	35.5	55.1	20.1	37.9	58.0	20.5	38.6	59.1	25.0	57.0	82.0	25.0	57.0	82.0
34.0	127.8	161.8	35.0	130.1	165.1	35.2	135.0	170.2	38.5	152.0	190.5	38.5	152.0	190.5
0	7.6	7.6	0	6.4	6.4	0	7.0	7.0	0	10.0	10.0	0	10.0	10.0
19.3	45.1	64.4	18.2	51.2	69.4	19.5	56.0	75.5	31.5	71.5	103.0	31.5	71.5	103.0
8.2	50.0	58.2	8.5	51.0	59.5	8.5	51.0	59.5	10.0	170.0	180.0	10.0	170.0	180.0
294.4	340.5	634.9	300.0	345.0	645.0	307.0	345.0	652.0	340.0	353.0	693.0	340.0	353.0	693.0
13.0	55.0	68.0	14.0	58.0	72.0	14.0	55.0	69.0	17.0	60.0	77.0	17.0	60.0	77.0
392.5	**695.5**	**1088.0**	**399.9**	**714.6**	**1114.5**	**408.8**	**724.7**	**1133.5**	**467.0**	**915.5**	**1382.5**	**467.0**	**915.5**	**1382.5**
591.5	**1143.7**	**1735.2**	**594.7**	**1152.5**	**1747.2**	**606.8**	**1147.6**	**1754.4**	**710.3**	**1368.5**	**2078.8**	**710.3**	**1368.5**	**2078.8**

TABLE 3B: WORLD CELLULOSIC FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY *(continued)*

THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION											
	1978			1979			1980			1981		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
U.S.A.	**164.6**	**245.7**	**410.3**	**169.4**	**252.4**	**421.8**	**161.3**	**204.3**	**365.6**	**138.6**	**210.7**	**349.3**
OTHER AMERICAS												
ARGENTINA	4.4	3.8	8.2	5.1	4.7	9.8	2.0	1.5	3.5	1.0	0	1.0
BRAZIL	24.1	22.4	46.5	24.4	25.5	49.9	26.0	25.3	51.3	21.0	25.3	46.3
CANADA	12.3	26.8	39.1	14.1	31.3	45.4	14.0	30.0	44.0	13.5	28.2	41.7
CHILE	0.8	3.3	4.1	1.0	3.0	4.0	1.0	3.0	4.0	1.0	3.0	4.0
COLOMBIA	3.4	0	3.4	3.4	0	3.4	2.4	0	2.4	1.8	0	1.8
CUBA	2.3	3.7	6.0	2.4	3.8	6.2	2.2	3.8	6.0	2.2	3.8	6.0
MEXICO	17.2	10.5	27.7	17.1	10.3	27.4	16.8	11.0	27.8	16.5	11.3	27.9
PERU	1.1	0	1.1	1.3	0	1.3	1.5	0	1.5	1.3	0	1.3
URUGUAY	1.3	0	1.3	1.4	0	1.4	1.3	0	1.3	1.0	0	1.0
VENEZUELA	3.0	0	3.0	3.0	0	3.0	2.8	0	2.8	2.8	0	2.8
TOTAL OTHER AMERICAS	**69.9**	**70.5**	**140.4**	**73.2**	**78.6**	**151.9**	**70.0**	**74.6**	**144.6**	**62.2**	**71.6**	**133.8**
JAPAN	**109.8**	**279.4**	**389.2**	**114.3**	**290.4**	**404.7**	**119.3**	**279.0**	**397.3**	**118.7**	**273.5**	**392.2**
OTHER AFRICA, ASIA & OCEANIA												
BANGLADESH	3.0	0	3.0	4.1	0	4.1	3.5	0	3.5	3.0	0	3.0
CHINA, P.R.C.	65.0	80.0	145.0	68.0	85.0	153.0	75.0	95.0	170.0	80.0	105.0	185.0
EGYPT	6.0	3.7	9.7	5.8	4.2	10.0	6.0	4.0	10.0	6.0	4.0	10.0
INDIA	62.4	92.0	154.4	60.5	92.2	152.7	57.7	74.7	132.4	55.9	94.5	150.4
INDONESIA	0	0	0	0	0	0	0	0	0	0	0	0
IRAQ	3.0	5.5	8.5	2.9	5.4	8.3	3.0	5.5	8.5	3.0	5.5	8.5
KOREA, REP. OF	12.7	10.0	22.7	13.2	10.4	23.6	12.4	15.0	27.4	12.8	13.9	26.7
PAKISTAN	2.3	0	2.3	2.0	0	2.0	2.7	0	2.7	2.4	0	2.4
TAIWAN	3.1	66.9	70.0	3.0	70.0	73.0	3.0	75.3	78.3	3.0	96.7	99.7
THAILAND	0	13.5	13.5	0	15.1	15.1	0	16.4	16.4	0	16.4	16.4
TOTAL A., A. & O	**157.5**	**271.6**	**429.1**	**158.5**	**282.3**	**441.8**	**163.3**	**285.9**	**449.2**	**166.1**	**336.0**	**502.1**
TOTAL WORLD	**1167.0**	**2148.1**	**3315.1**	**1176.4**	**2194.9**	**3371.3**	**1161.4**	**2881.0**	**3242.4**	**1104.2**	**2899.9**	**3304.1**

			ACTUAL PRODUCTION						PRODUCING CAPACITY					
1982			1983			1984			1985			1986		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
153.6	181.0	284.6	119.7	170.6	290.3	108.4	176.7	285.1	122.0	233.1	355.1	122.0	233.1	355.1
1.6	0	1.6	1.7	0	1.7	1.8	1.5	3.3	9.0	10.0	19.0	9.0	10.0	19.0
20.8	24.2	45.0	18.4	22.0	40.4	17.7	29.0	46.7	22.2	31.2	53.4	22.2	31.2	53.4
8.5	29.0	37.5	10.0	30.0	40.0	10.0	31.0	41.0	14.5	38.0	52.5	14.5	38.0	52.5
1.0	3.2	4.2	1.0	3.2	4.2	1.2	3.7	4.9	1.5	5.4	6.9	1.5	5.4	6.9
1.8	0	1.8	1.8	0	1.8	1.8	0	1.8	3.5	0	3.5	3.5	0	3.5
2.1	3.6	5.7	2.0	3.5	5.5	2.0	3.5	5.5	3.0	5.0	8.0	3.0	5.0	8.0
14.1	5.4	19.5	10.8	5.0	15.8	10.9	4.0	14.9	15.0	0	15.0	15.0	0	15.0
1.0	0	1.0	1.0	0	1.0	1.7	0	1.7	1.7	0	1.7	1.7	0	1.7
0.6	0	0.6	1.0	0	1.0	1.0	0	1.0	1.0	0	1.0	1.0	0	1.0
1.2	0	1.2	1.5	0	1.5	1.5	0	1.5	2.4	0	2.4	2.4	0	2.4
53.7	64.4	118.1	49.2	63.7	112.9	49.6	72.7	122.3	73.8	89.6	163.4	73.8	89.6	163.4
120.5	258.8	379.3	116.8	271.0	387.8	110.8	266.6	377.4	135.9	300.0	435.9	135.9	300.0	435.9
2.5	0	2.5	2.5	1.0	3.5	2.5	1.0	3.5	5.4	5.0	10.4	5.4	5.0	10.4
90.0	105.0	195.0	85.0	112.0	197.0	87.0	115.0	202.0	100.0	130.0	230.0	100.0	130.0	230.0
7.0	4.5	11.5	7.0	4.6	11.6	7.0	4.6	11.6	7.0	5.4	12.4	7.0	5.4	12.4
48.6	52.8	101.4	46.2	69.9	116.1	44.2	94.0	138.2	70.0	120.8	190.8	70.0	166.6	236.6
0	10.1	10.1	0	12.0	12.0	0	12.6	12.6	0	36.0	36.0	0	36.0	36.0
3.0	5.5	8.5	3.0	5.5	8.5	3.0	5.5	8.5	3.5	6.5	10.0	3.5	6.5	10.0
9.9	5.8	15.7	12.9	0	12.9	12.8	0	12.8	14.0	28.1	42.1	14.0	28.1	42.1
1.6	0	1.6	2.7	0	2.7	3.1	0	3.1	3.3	0	3.3	3.3	0	3.3
3.3	89.5	92.8	3.0	98.5	101.5	2.5	125.5	128.0	4.3	130.0	134.3	4.3	130.0	134.3
0	15.5	15.5	0	17.5	17.5	0	18.0	18.0	0	18.2	18.2	0	18.2	18.2
194.1	288.7	444.8	162.3	321.0	483.3	162.1	376.2	538.3	207.5	480.0	687.5	207.5	525.8	733.3
1025.4	1916.6	2942.0	1042.7	1978.8	3021.5	1037.7	2039.8	3077.5	1249.5	2471.2	3720.7	1249.5	2517.0	3766.5

TABLE 4: RAYON VS. ACETATE FILAMENT YARN PRODUCTION & PRODUCING CAPACITY BY COUNTRY

THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION 1978 H	1978 R+C	1978 A	1979 H	1979 R+C	1979 A	1980 H	1980 R+C	1980 A	1981 H	1981 R+C	1981 A	1982 H	1982 R+C	1982 A	1983 H	1983 R+C	1983 A	1984 H	1984 R+C	1984 A	PRODUCING CAPACITY 1985 H	1985 R+C	1985 A	1986 H	1986 R+C	1986 A
WESTERN EUROPE																											
AUSTRIA	8	3	0	8	4	0	11	4	0	11	5	0	9	5	0	8	4	0	10	5	0	10	5	0	10	5	0
BELGIUM/NETHERLANDS	15	15	6	14	15	7	15	16	6	16	16	6	14	16	6	18	17	7	17	16	7	19	17	8	19	17	8
FRANCE	9	10	0	9	9	0	8	9	0	2	9	0	0	9	0	0	8	0	0	7	0	0	10	0	0	10	0
WEST GERMANY[c]	35	23	2	33	23	2	40	24	1	39	25	1	40	21	0	39	20	0	45	21	0	43	25	0	43	25	0
ITALY[c]	11	11	17	11	9	18	11	5	21	11	5	19	9	3	19	9	2	18	11	2	18	12	9	20	12	9	20
SPAIN	6	5	3	5	5	3	6	4	3	6	3	3	4	4	3	3	4	3	+	4	3	9	9	4	9	9	4
UNITED KINGDOM	15	10	35	11	10	36	1	2	34	0	0	27	0	0	24	0	0	25	0	0	21	0	0	33	0	0	33
OTHER[a]	0	15	0	0	15	0	0	12	0	0	11	0	0	10	0	0	10	0	0	10	0	0	12	0	0	12	0
TOTAL WESTERN EUROPE	**99**	**92**	**63**	**91**	**90**	**68**	**92**	**76**	**65**	**85**	**74**	**56**	**76**	**68**	**52**	**77**	**65**	**53**	**83**	**65**	**49**	**93**	**87**	**65**	**93**	**87**	**65**
EASTERN EUROPE																											
BULGARIA	0	3	0	0	3	0	0	3	0	0	4	0	0	4	0	0	4	0	0	4	0	0	5	0	0	5	0
CZECHOSLOVAKIA	10	12	0	10	12	0	9	11	0	8	10	0	8	12	0	8	12	0	8	12	0	11	14	0	11	14	0
GERMANY, D.R.	13	21	0	13	22	0	14	23	0	14	23	0	13	21	0	14	22	0	14	22	0	15	24	0	15	24	0
POLAND	8	20	0	7	20	0	7	18	0	5	15	0	4	15	0	4	14	0	5	15	0	9	23	0	9	23	0
ROMANIA	6	3	0	6	4	0	6	4	0	6	4	0	5	3	0	5	3	0	5	3	0	6	4	0	6	4	0
USSR[c]	165	80	55	163	80	55	165	85	55	165	80	55	160	80	54	162	83	55	165	85	57	170	100	70	170	100	70
YUGOSLAVIA	7	8	0	7	9	0	7	8	0	7	8	0	6	7	0	7	7	0	7	7	0	8	9	0	8	9	0
TOTAL EASTERN EUROPE	**209**	**147**	**55**	**206**	**150**	**55**	**208**	**152**	**55**	**205**	**144**	**55**	**196**	**142**	**54**	**200**	**145**	**55**	**204**	**148**	**57**	**219**	**179**	**70**	**219**	**179**	**70**
U.S.A.[c]	**21**	**7**	**137**	**19**	**7**	**143**	**14**	**7**	**140**	**15**	**7**	**117**	**9**	**6**	**86**	**11**	**6**	**103**	**13**	**6**	**90**	**21**	**7**	**122**	**21**	**7**	**122**
OTHER AMERICAS																											
ARGENTINA	1	2	1	1	3	1	1	1	+	0	+	1	0	0	2	0	0	2	0	0	2	0	6	3	0	6	3
BRAZIL	8	12	4	7	15	3	6	16	4	4	14	3	4	15	2	3	14	1	4	12	2	5	16	2	5	16	2
CANADA	0	0	12	0	0	14	0	0	14	0	0	13	0	0	10	0	0	10	0	0	10	0	0	15	0	0	15
CHILE	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	2	0	0	2	0
COLOMBIA	0	0	4	0	0	4	0	0	2	0	0	2	0	0	2	0	0	2	0	0	2	0	0	4	0	0	4
CUBA	2	+	0	2	+	0	2	+	0	2	+	0	2	+	0	2	+	0	2	0	0	3	0	0	3	0	0
MEXICO	3	6	9	3	6	8	3	6	8	3	6	8	3	5	6	3	2	6	2	2	6	3	4	9	3	4	9
PERU	0	+	1	0	+	1	0	0	2	0	0	1	0	0	1	0	0	1	0	0	2	0	0	2	0	0	2
URUGUAY	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1
VENEZUELA	0	0	3	0	0	3	0	0	3	0	0	3	0	0	1	0	0	1	0	0	2	0	0	2	0	0	2
TOTAL OTHER AMERICAS	**14**	**21**	**35**	**13**	**25**	**35**	**12**	**24**	**34**	**9**	**21**	**32**	**9**	**21**	**25**	**8**	**17**	**24**	**8**	**15**	**27**	**11**	**28**	**38**	**11**	**28**	**38**
JAPAN[c]	**4**	**78**	**28**	**3**	**80**	**31**	**3**	**84**	**32**	**4**	**82**	**32**	**4**	**83**	**34**	**3**	**82**	**32**	**2**	**78**	**31**	**10**	**92**	**34**	**10**	**92**	**34**
OTHER AFRICA, ASIA & OCEANIA																											
INDIA	18	42	2	17	42	2	14	42	2	14	40	2	11	36	2	10	35	1	10	33	1	21	46	3	21	46	3
PAKISTAN	0	0	2	0	0	2	0	0	3	0	0	2	0	0	2	0	0	3	0	0	3	0	0	3	0	0	3
REP. OF KOREA	0	11	2	0	11	2	0	10	2	0	11	2	0	8	2	0	11	2	0	11	2	0	12	2	0	12	2
OTHER[b]	0	80	0	0	84	0	0	90	0	0	95	0	0	97	0	0	100	0	0	102	0	0	120	0	0	120	0
TOTAL A, A+O	**18**	**133**	**6**	**17**	**137**	**6**	**14**	**142**	**7**	**14**	**146**	**6**	**11**	**141**	**6**	**10**	**146**	**6**	**10**	**146**	**6**	**21**	**178**	**8**	**21**	**178**	**8**
WORLD TOTAL	**365**	**478**	**324**	**349**	**489**	**338**	**343**	**485**	**333**	**332**	**474**	**298**	**309**	**461**	**259**	**309**	**461**	**273**	**320**	**458**	**260**	**375**	**571**	**337**	**375**	**571**	**337**

H Means high tenacity (tire & industrial type) viscose rayon yarn.
R Means regular + intermediate tenacity viscose rayon yarn.
C Means cuprammonium rayon yarn.
A Means acetate + triacetate yarn.

a. Comprises Finland, Greece, Portugal, Switzerland and Turkey.
b. Comprises Bangladesh, People's Republic of China, Egypt, Iraq and Taiwan.
c. Produces both regular + intermediate rayon yarn and cuprammonium rayon yarn.

TABLE 5: WORLD NONCELLULOSIC FIBER PRODUCTION & PRODUCING CAPACITY BY FIBER (EXCEPT OLEFIN)

THOUSAND METRIC TONS

FIBER & AREA	ACTUAL PRODUCTION																					PRODUCING CAPACITY					
	1978			1979			1980			1981			1982			1983			1984			1985			1986		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
ACRYLIC + MODACRYLIC																											
WEST EUROPE	+	794	794	+	795	795	+	737	737	+	807	807	0	753	753	0	831	831	1	871	872	1	1030	1031	1	1005	1006
EAST EUROPE	0	200	200	0	213	213	0	217	217	0	211	211	0	209	209	0	220	220	0	226	226	0	306	306	0	306	306
U.S.A.	0	329	329	0	345	345	0	355	355	0	313	313	0	283	283	0	304	304	0	304	304	0	340	340	0	306	306
OTHER AMERICAS	0	98	98	0	108	108	0	114	114	0	106	106	0	121	121	0	130	130	0	141	141	0	183	183	0	184	184
JAPAN	3	370	373	4	355	359	3	350	353	1	347	348	3	344	347	2	355	357	2	367	369	6	398	404	6	398	404
OTHER A. A. & O	0	227	227	0	249	249	0	284	284	0	305	305	0	348	348	0	365	365	0	422	422	0	515	515	0	560	560
TOTAL	**3**	**2018**	**2021**	**4**	**2065**	**2069**	**3**	**2057**	**2060**	**1**	**2089**	**2090**	**3**	**2058**	**2061**	**2**	**2205**	**2207**	**3**	**2331**	**2334**	**7**	**2772**	**2779**	**7**	**2759**	**2766**
NYLON + ARAMID																											
WEST EUROPE	566	150	716	571	148	719	521	128	649	521	129	650	474	107	581	488	117	605	493	135	628	630	185	815	627	190	817
EAST EUROPE	405	31	436	414	31	445	461	55	516	454	79	533	460	83	543	486	81	567	489	81	570	702	99	801	722	99	821
U.S.A.	750	407	1157	808	426	1234	740	330	1070	717	341	1058	563	311	874	677	420	1097	715	379	1094	842	486	1328	852	514	1366
OTHER AMERICAS	187	22	209	205	23	228	208	23	231	181	20	201	176	21	197	183	22	205	203	22	225	306	40	346	306	40	346
JAPAN	293	16	309	296	17	313	300	18	318	282	19	301	265	19	284	271	18	289	288	19	307	320	24	344	320	24	344
OTHER A. A. & O	309	3	312	332	3	335	365	2	367	393	3	396	385	3	388	402	4	406	453	5	458	692	52	744	728	51	779
TOTAL	**2510**	**629**	**3139**	**2626**	**648**	**3274**	**2595**	**556**	**3151**	**2546**	**591**	**3139**	**2323**	**544**	**2867**	**2507**	**662**	**3169**	**2841**	**841**	**3282**	**3492**	**886**	**4378**	**3083**	**918**	**4473**
POLYESTER																											
WEST EUROPE	393	429	822	407	445	852	359	407	766	378	449	827	389	438	827	380	479	859	418	489	907	513	599	1112	579	600	1179
EAST EUROPE	112	304	416	118	308	426	135	321	456	132	334	466	147	342	489	165	368	533	182	395	577	286	618	904	344	629	973
U.S.A.	710	1014	1724	779	1117	1896	663	1146	1809	712	1182	1894	550	887	1437	617	991	1608	544	994	1538	660	1265	1925	680	1265	1945
OTHER AMERICAS	196	134	330	214	164	378	223	166	389	210	163	373	190	160	350	202	178	380	206	213	419	305	269	574	315	276	591
JAPAN	318	319	637	314	318	632	305	321	626	310	321	631	314	314	628	310	320	630	327	320	647	419	356	775	419	356	775
OTHER A. A. & O	321	500	821	386	556	942	409	672	1081	479	795	1274	533	817	1350	644	921	1565	799	1262	2061	970	1728	2698	1120	1878	2998
TOTAL	**2090**	**2700**	**4790**	**2218**	**2908**	**5126**	**2094**	**3033**	**5127**	**2221**	**3244**	**5465**	**2123**	**2958**	**5081**	**2318**	**3297**	**5615**	**2476**	**3673**	**6149**	**3153**	**4935**	**7988**	**3457**	**5004**	**8461**
OTHER FIBER[b] (EXCEPT OLEFIN)																											
WEST EUROPE	3	9	12	5	11	16	6	11	17	6	7	13	6	9	15	6	9	15	6	9	15	8	12	20	8	12	20
EAST EUROPE	9	7	16	5	7	12	+	4	4	1	3	4	1	3	4	+	3	3	+	4	4	1	8	9	1	8	9
U.S.A.	7	1	8	8	1	9	9	+	9	10	1	11	8	1	9	+	+	+	+	+	+	14	0	14	14	0	14
OTHER AMERICAS	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1
JAPAN	15	42	57	17	42	59	18	43	61	14	33	47	14	31	45	14	28	42	17	29	46	28	103	131	28	103	131
OTHER A. A. & O	5	25	30	5	30	35	6	40	46	7	50	57	7	50	57	7	55	62	7	55	62	18	65	81	18	65	81
TOTAL	**40**	**84**	**124**	**41**	**91**	**132**	**40**	**96**	**136**	**38**	**94**	**133**	**37**	**94**	**131**	**28**	**95**	**123**	**31**	**97**	**128**	**69**	**188**	**256**	**69**	**188**	**256**
TOTAL FIBERS ABOVE																											
WEST EUROPE	962	1382	2344	983	1399	2382	886	1283	2169	905	1392	2297	869	1307	2176	874	1436	2310	918	1504	2422	1152	1826	2978	1215	1807	3022
EAST EUROPE	526	542	1068	537	559	1096	596	597	1193	587	627	1214	608	637	1245	651	672	1323	671	706	1377	989	1031	2020	1067	1042	2109
U.S.A.	1467	1751	3218	1595	1889	3484	1412	1831	3243	1439	1837	3276	1121	1482	2603	1294	1715	3009	1259	1677	2936	1516	2091	3607	1546	2085	3631
OTHER AMERICAS	384	254	638	420	295	715	432	303	735	392	289	681	367	302	669	386	330	716	410	376	786	612	492	1104	622	500	1122
JAPAN	629	747	1376	631	732	1363	626	732	1358	607	720	1327	596	708	1304	597	721	1318	634	735	1369	773	891	1664	773	891	1664
OTHER A. A. & O	635	755	1390	723	838	1561	780	998	1778	879	1153	2032	925	1218	2143	1053	1345	2398	1259	1744	3003	1678	2360	4038	1864	2554	4418
TOTAL WORLD	**4603**	**5431**	**10034**	**4909**	**5712**	**10601**	**4732**	**5764**	**10476**	**4809**	**6018**	**10827**	**4486**	**5654**	**10140**	**4855**	**6219**	**11074**	**5151**	**6742**	**11893**	**6720**	**8681**	**15401**	**7087**	**8869**	**15956**

Y means yarn + monofilaments. **S** means staple + tow + fiberfill. The regional totals here are the same as those on pages 107-110.

a. U.S.A. nylon producing capacity data do not include aramid.

b. Other fibers are alginate, azlon, spandex or elastomer, saran, TFE-fluorocarbon, vinal and vinyon. U.S.A. production data do not include spandex in 1984.

TABLE 6: WORLD GLASS FIBER PRODUCTION & PRODUCING CAPACITY

THOUSAND METRIC TONS

COUNTRY	PRODUCTION							CAPACITY	
	1978	1979	1980	1981	1982	1983	1984	1985	1986
WEST EUROPE	304	310	300	277	250	290	300	375	375
EAST EUROPE[a]								50	50
U.S.A.	419	450	393	472	406	530	632	826	853
OTHER AMERICAS	27	28	30	31	35	37	39	60	60
JAPAN	146	178	167	174	198	206	249	267	314
OTHER[b] A.A. & Oc.	12	12	13	14	12	14	14	31	31
TOTAL ABOVE	908	980	903	968	903	1077	1234	1609	1683
CHINA, P.R.C.	DATA NOT AVAILABLE				30	33	40	60	60
U.S.S.R.					65	80	75	110	110

Glass fiber is defined on page 118 of this issue. The glass fiber producing capacity in operable condition is shown on an annual rate basis as of March 1985 (1985) and December 1986 (1986).

a. The data for East Europe do not include estimates for the U.S.S.R.

b. The Other Africa, Asia & Oceania countries are Australia, India and South Africa.

TABLE 7: ESTIMATED WORLD CIGARETTE TOW PRODUCTION

THOUSAND METRIC TONS

AREA	1978	1979	1980	1981	1982	1983	1984
EUROPE[a]	76	74	74	81	81	80	80
U.S.A.[c]	160	199	220	209	216	211	184
OTHER AMERICAS[b]							
ASIA[c]	40	41	41	42	42	43	47
WORLD TOTAL	296	314	335	349	339	334	311

a. Belgium, Fed. Rep. of Germany, U.S.S.R. & United Kingdom.

b. Brazil, Canada, Colombia, Mexico & Venezuela.

c. Japan and Rep. of Korea.

TABLE 8: WORLD ACETATE STAPLE PRODUCTION & CAPACITY

THOUSAND METRIC TONS

COUNTRY	PRODUCTION							CAPACITY	
	1978	1979	1980	1981	1982	1983	1984	1985	1986
U.K.	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.5	0.5
U.S.A.	3.2	3.2	3.2	1.8	0.5	0.6	0.2	0.2	0.2
CANADA	0.6	0	0	0	0	0	0	0	0
INDIA	0.4	0.4	0.1	0.3	0.3	0.2	0.2	0.8	0.8
WORLD TOTAL	4.7	4.1	3.6	2.3	1.0	1.0	0.6	1.5	1.5

TABLE 9: WORLD OLEFIN FIBER PRODUCTION

THOUSAND METRIC TONS

COUNTRY	1978	1979	1980	1981	1982	1983	1984
WEST EUROPE							
BENELUX	49	56	57	66	73	75	77
DENMARK	14	15	14	14	13	14	14
FRANCE	30	24	27	28	26	29	29
GERMANY, F.R.	52	57	53	56	55	61	61
IRELAND (EIRE)	5	6	9	9	8	9	9
ITALY	59	61	57	62	59	67	71
UNITED KINGDOM	80	82	80	81	75	80	80
SUBTOTAL EEC	289	301	297	316	310	335	341
AUSTRIA	18	19	16	17	19	20	21
FINLAND	3	3	3	3	3	4	4
GREECE/CYPRUS	9	10	9	9	9	10	9
NORWAY	3	4	4	4	4	5	4
PORTUGAL	39	36	40	36	36	39	39
SPAIN	36	37	36	36	36	36	37
SWEDEN	3	3	3	3	3	4	4
SWITZERLAND	3	3	3	3	3	4	4
TURKEY	6	5	5	5	5	6	6
TOTAL WEST EUROPE	409	423	420	435	430	463	469
EAST EUROPE							
CZECHOSLOVAKIA	11	12	11	11	11	12	12
HUNGARY	10	13	15	16	16	16	16
POLAND	14	13	14	15	12	15	16
U.S.S.R.	12	15	15	15	14	18	20
U.S.A.							
YARN - MONOFIL	143	151	147	145	134	168	175
STAPLE	43	54	52	64	63	86	113
FILM FIBER	126	139	140	148	131	149	154
OTHER AMERICAS							
ARGENTINA	11	11	10	10	11	12	12
BRAZIL	40	39	40	40	39	36	39
CANADA	31	32	30	30	28	32	30
CHILE	1	1	1	1	1	1	1
EL SALVADOR, GUATEMALA, HONDURAS	2	2	2	2	2	3	3
MEXICO	18	20	22	23	23	26	26
NICARAGUA	1	1	1	1	1	1	1
PERU	5	5	5	6	6	6	6
URUGUAY	1	1	1	2	1	2	2
JAPAN							
YARN - MONOFIL	16	15	16	14	14	14	14
STAPLE	27	29	27	26	26	29	32
FILM FIBER	NA	NA	NA	NA	NA	NA	NA
OTHER AFRICA, ASIA & OCEANIA							
AUSTRALIA	18	20	20	20	19	21	22
KOREA, REP. OF	7	6	4	3	2	1	1
PHILIPPINES	2	2	2	2	3	3	3
SOUTH AFRICA	3	3	3	3	3	5	5
TAIWAN	44	46	50	53	56	60	63
OTHER	+	+	+	+	+	1	1

The olefin data shown comprise (a) the tonnages of yarn, monofilaments and staple plus film fiber reported by official sources, such as governments, trade associations or other statistical agents plus (b) estimates of the additional tonnages of olefin fiber not included in the aforementioned data. Note text on page 140.

No attempt is made to strike a world total inasmuch as data are incomplete for a number of countries, particularly in Latin America, East Europe and Other Africa, Asia & Oceania.

1985 WORLD DIRECTORY OF MAN-MADE FIBER PRODUCERS

NOTES & DEFINITIONS

This directory of producers lists each country separately and divides them into the following categories:

(1) Cellulosic plus Noncellulosic Fibers
(2) Olefin fiber
(3) Textile glass fiber.

The locality shown represents a plant site.

The generic fiber names used in this survey are those established by the U.S. Federal Trade Commission (FTC). The *italicized* words are trademarks. All other fiber names are generic and appear in regular type.

- ● Indicates a company producing olefin fiber as well as other man-made fiber(s). For example, Brasil Viscose S.A. produces olefin fiber in Brazil as well as nylon and rayon. The nylon and rayon entries for this company are in one section and the olefin entry is shown in the Olefin Fiber section.
- * Indicates a new plant, in the planning stage or under construction, or a new facility for producing a new product at an existing plant. Such facilities are not expected to be operable before 1986 or later.

Yarn means filament yarn.

Monofil means an extruded monofilament and may be either a round or rectangular (ribbon) cross-section. Monofilaments for bristles are excluded.

Film includes **Slit**: tape produced by slitting an already attenuated wide sheet of olefin film; and **Split**: fibrillated slit film.

Not included in this survey is the slit film used for decorative or tying ribbon and such.

Captive means that most or all of the fiber produced is consumed by the company in a vertical operation.

GENERIC NAMES & TRADEMARKS

The following are generic names, in **bold** type, and a brief description of the fibers covered by each name and are shown in regular type.

GLASS FIBER

This fiber is made in two primary forms: continuous strand and staple sliver. Continuous strand is drawn fiber (i.e., from a textile-type bushing), while staple sliver, which is produced in relatively small amounts, is a blown fiber.

Glass fiber is produced and sold as filament yarn, strand, roving, mat, chopped strand, milled fiber and staple yarn & sliver. In addition, there are two primary uses for glass fiber: Textile, used by textile mills in conventional constructions (e.g. drapery and tire cord) or Non-Textile, used for nonconventional constructions (e.g. reinforced plastics and roofing shingles).

For additional information see the definitions on page 196 of the November 1984 ***Organon*** and page 40 of the March 1985 ***Organon***.

CELLULOSIC (ARTIFICIAL) FIBERS

Acetate: Cellulose acetate. Cigarette filtration tow is excluded.

Triacetate: Cellulose acetate, wherein not less than 92% of the hydroxyl groups are acetylated.

Rayon: Regenerated cellulose, including substitutions for not more than 15% of the hydrogens of the hydroxyl groups. Includes high wet modulus fiber.

Cupra: Cuprammonium rayon.

The viscose rayon yarns are identified as **ind** (industrial or high tenacity yarn) and **reg** (regular or textile yarn).

NONCELLULOSIC (SYNTHETIC) FIBERS

Acrylic: At least 85% acrylonitrile by weight.

Modacrylic: 35% to 84% acrylonitrile by weight, except when it qualifies as rubber.

Azlon: Regenerated natural protein.

Nylon: A long-chain synthetic polyamide in which less than 85% of the amide linkages are attached directly to two aromatic rings. The types are identified as 6, 66, etc. Where a company produces both type 6 and type 66, the designation 6/66 is used.

Aramid: A long-chain synthetic polyamide in which at least 85% of the amide linkages are attached directly to two aromatic rings. In this survey, any aramid data are included with nylon.

Olefin: At least 85% ethylene, propylene or other olefin units by weight, except amorphous (noncrystalline) polyolefins qualifying as rubber. **E** means Polyethylene and **P** means Polypropylene. Also see adjoining notes on olefin fiber.

Polyester: At least 85% by weight of an ester of a substituted aromatic carboxylic acid, including but not restricted to substituted terephthalate units, and parasubstituted hydroxybenzoate units.

Saran: At least 80% vinylidene chloride by weight.

Spandex: At least 85% of segmented polyurethane.

Vinal: At least 50% by weight vinyl alcohol and wherein the vinyl alcohol plus acetal units are at least 85% by weight.

Vinyon: At least 85% vinyl chloride by weight.

Other man-made fibers included in this survey, but not listed by the FTC, are **Polycarbonate** (U.S.A.), **Polychlal** (Japan), **Promix** (Japan) and **TFE- & FEP-fluorocarbon** (Fluoro) (Japan, U.S.A. & U.S.S.R.).

Not covered in this survey are fibers which would fall under the FTC's generic designations of rubber, lastrile, metallic and novoloid. Fibers falling under the FTC designations of anidex and nytril are no longer produced.

Carbon fibers are not included in this survey.

International Standard #2076, "Generic Names of Man-Made Fibres," as established by the International Organization for Standardization, lists some 23 names, of which the following are similar to the FTC designations: cupro, viscose, acetate, triacetate, acrylic, modacrylic, nylon or polyamide, polyester and glass. The IOS also lists modal (regenerated cellulose obtained by processes giving a high tenacity and a high wet modulus), alginate (metallic salts of alginic acid), chlorofibre (similar to the FTC's saran and vinyon), elastane (similar to the FTC's spandex), elastodiene, fluorofibre, polycarbamide, polyethylene & polypropylene (similar to the FTC's olefin), polyurethane, trivinyl and vinylal (similar to the FTC's vinal).

ALBANIA

(Producer not yet known)

Acrylic	(staple)
Polyester	(yarn & staple*)

ARGENTINA

COAFI S.A.

Polyester	Buenos Aires (yarn)

DUCILO S.A.I.C.

Nylon 66	Berazategui & Mercedes *Nylon Ducilo* (yarn)
Spandex	Mercedes (fused multifil or coalesced monofil)

HISISA ARGENTINA S.A.I.C.I.F.

Acrylic	Baradero *Cashmilon* (staple)

MANUFACTURAS DE FIBRAS SYNTETICAS (formerly Petroquimica Sudamericana)

Nylon 6	Olmos - Lapi (yarn)
Polyester	Olmos - Lapi (yarn & staple)

MITEXTIL S.A.

Nylon 6	Buenos Aires (yarn)

M. NAHMIAS S.A.C.I.

Polyester	Buenos Aires (yarn)

NICIEZA y TAVERNA HNOS. S.A.

Nylon 6	Chivilcoy *Grilon* (monofil)

RHODIA ARGENTINA QUIMICA e TEXTIL

Acetate	Quilmes (yarn)
Polyester	Quilmes *Tergal* (yarn)

SOCIEDAD NUEVAS INDUSTRIAS ARGENTINAS FIBRAS ARTIFICIALES S.A.I.C.F.I. (SNIAFA)

Nylon 6	Hernández-La Plata *Snialon* (yarn)
Rayon	Plátanos (reg yarn & staple)

SUDAMTEX S.A. TEXTIL SUDAMERICANA

Polyester	Azul *Acrocel* (staple)

VALENCIANA ARGENTINA S.A.

Nylon 6	Buenos Aires (yarn)

OLEFIN FIBER

AGAPOL S.A. (P yarn)

MANUFACTURA FORTI ARGENTINA S.A.C.I.A.F.I. Buenos Aires (P yarn & staple)

PANAMERICA DE PLASTICOS S.A.I.C. Olivos (P staple)

TEXTILYUTE S.A.I.C. Isidro Casanova (P film)

VINISA S.A.I.C. Buenos Aires *Rafistal, Strofil* (E & P monofil)

GLASS FIBER

VIDRIERIA ARGENTINA S.A. (VASA)
Llavallol *Texover*

AUSTRALIA

FIBREMAKERS LTD.

Biconstituent	Mulgrave, Victoria *Front Runner* (melded fabric)
Nylon 66	Bayswater, Victoria *Bri-Nylon* (yarn & monofil), Penrith, N.S.W. (tire cord)
Polyester	Bayswater *Terylene* (yarn, staple & tow)

UNITED CARPET MILLS PTY. LTD.

Nylon 6	Thomastown, Victoria *Unilon* (yarn)
Polyester	Thomastown (yarn)

In addition to the above, VILENE AUSTRALIA reportedly produces spunbonded products at Minto, N.S.W.; these are believed to be principally based on cellulosic fiber, but some polypropylene may be used.

OLEFIN FIBER

AMOCO FABRICS COMPANY, PATCHOGUE PLYMOUTH DIVISION Liverpool, N.S.W. *Poly Bac, Propex* (P film)

SARLON INDUSTRIES PTY. LTD. Punchbowl, N.S.W. (E & P monofil & film)

OLEFIN FILM FIBER, only

A. ABRAHAMS & SONS PTY. LTD., Clayton, Victoria *(Koala, Polytex)*

CORDEX INDUSTRIES PTY. LTD., Gladesville, N.S.W.

GEO. KINNEAR & SONS PTY. LTD., Footscray, Victoria *(Emu)*

H.J. PENNO, Adelaide, South Australia

TAPEX PTY. LTD., Sydney, N.S.W.

GLASS FIBER

AUSTRALIAN FIBREGLASS PTY. LIMITED Dandenong, Victoria *A.C.I. Fibreglass*

AUSTRIA

AUSTRIA FASERWERKE, G.m.b.H.

Polyester	Lenzing *Trevira* (staple)

CHEMIEFASER LENZING A.G.●

Fluoro	Lenzing (yarn & staple)
Rayon	Lenzing (staple)

GLANZSTOFF AUSTRIA G.m.b.H. (formerly Enka-Austria)

Rayon	St. Pölten (ind & reg yarn)

OLEFIN FIBER

CHEMIE LINZ A.G. Linz *Asota, Linz-PP-Multifil, Linz-PP-Vlies* (P yarn, staple & spunbonded)

OLEFIN FILM FIBER, only

CHEMIEFASER LENZING A.G., Lenzing

M. TEUFELBERGER, Wels

SEUTTER, Unter Eggendorf

BANGLADESH

ASHUGANJ PETROCHEMICAL COMPLEX

Acrylic	Ashuganj* (staple)

BANGLADESH CHEMICAL INDUSTRIES

Rayon	(staple)

KARNAPHULI RAYON AND CHEMICALS LIMITED

Rayon	Chandraghona, Chittagong (reg yarn & staple*)

PYLON INDUSTRIES LIMITED

Nylon 6	Fouzdarhat Industrial Estate, Chittagong *Pylon* (yarn)

BELGIUM

N.V. BAYER S.A.
Nylon 6 — Antwerpen *Dorix* (staple)

BEAULIEU-NYLON S.A.●
Nylon 6 — Kruishoutem, East Flanders (yarn & staple)

N.V. CELANESE S.A.
Acetate — Lanaken, Limburg (yarn)
Triacetate — Lanaken (yarn)

FABELTA NINOVE S.A.
Rayon — Ninove, East Flanders (reg yarn)

FABELTA ZWIJNAARDE, S.A.
Nylon 66 — Zwijnaarde, East Flanders *Fabelnyl* (yarn)

OLEFIN FIBER

DELOTEX (P staple)

N.V. FIBRILO Zele, East Flanders (P staple & film)

S.A. LA LOKEROISE Lokeren, East Flanders *Alpha Carpet, Delta Carpet* (P yarn & staple)

OSTEND STORES & ROPEWORKS S.A. Ostend, West Flanders

POLYFIL N.V. (subsidiary of Beaulieu) Wielsbeke (P yarn)

T.T.C. POLYOLEFINS S.A. Overpelt, Limburg (P monofil)

OLEFIN FILM FIBER, only

N.V. JONCKVANSTEEN, Passendale

S.A. PHORMIUM, Zele, East Flanders

POLYTEXCO S.P.R.L., Beveren, Kortryk

S.A. U.C.O., Ledeberg, Gent

GLASS FIBER

N.V. BAYER S.A. Antwerpen

OWENS-CORNING FIBERGLAS EUROPE S.A. Battice, Liége *Fiberglas*

Cellulosic production and capacity data are combined with the Netherlands on page 111-112. Noncellulosic production and capacity data are combined with the Netherlands and Luxembourg under "Benelux" on page 107-108.

BRAZIL

ARTEPESCA - S.A. ARTIGOS DE PESCA DO NORDESTE●
Nylon 6 — Igarassu, Pernambuco (monofil)

BANYLSA TECELAGEM DO BRASIL S.A.
Nylon 6 — Aratú, Bahia (yarn)
Polyester — Aratú *Fio Banylsa Poliester* (yarn)

BRASIL VISCOSE S.A.●
Nylon 6 — Jundiapeba, São Paulo *Giorgilon* (staple)
Rayon — Jundiapeba (staple)

CELANESE DO BRASIL - FIBRAS QUÍMICAS LTDA.
Polyester — Pocos de Caldas, Minas Gerais *Fortrel* (staple)

CELANESE DO BRASIL NORDESTE S.A.
Polyester — Aratu, Bahia *Fortrel* (yarn & staple)

CIA. BRASILEIRA DE SINTETICOS
Nylon 6 — Osasco (yarn)
Polyester — Osasco *Trevira* (yarn)

CIA. NITRO QUÍMICA BRASILEIRA
Rayon — São Miguel Paulista, São Paulo (reg yarn)

COBAFI - CIA. BAHIANA DE FIBRAS
Nylon 6 — Camaçari, Bahia (yarn)
Polyester — Camaçari (yarn)

DE MILLUS S.A. INDÚSTRIA E COMÉRCIO
Nylon 6 — Rio de Janeiro *Demilon* (yarn)

DU PONT S.A. INDÚSTRIAS QUÍMICAS
Spandex — Paulinia, São Paulo *Lycra* (fused multifil)

BRAZIL (continued)

EQUIPESCA - EQUIPAMENTOS DE PESCA S.A.
Nylon 6 — Campinas, São Paulo (monofil)

FIAÇAO GRASILEIRA DE RAYON - FIBRA S.A.
Nylon 6 — Americana & Osasco, São Paulo *Lilion* (yarn)
Polyester — São Paulo (yarn)
Rayon — Americana (reg yarn & staple)

FISIBA - FÍBRAS SINTÉTICAS DA BAHIA S.A.
Acrylic — Camacari, Bahia *Triana* (staple)

INDUSTRIAS MATARAZZO DE FIBRAS SINTÉTICAS S.A.
Nylon 6 — São José dos Campos, São Paulo (yarn)

MANAP - MANUFACTURA NACIONAL DE PLÁSTICOS●
Nylon 6 — Osasco, São Paulo *Caicara* (monofil)

MARCATTO S.A. IND. E COM.●
Nylon 6 — Jaraguá do Sul, Santa Catarina (monofil)

MAZZAFERRO POLIMEROS E FIBRAS SINTÉTICAS LTDA.
Nylon 6 — São Bernardo do Campo, São Paulo *Grilon, Tnlon* (yarn & monofil)
Polyester — São Bernardo do Campo, São Paulo (monofil)

MONOFIL - CIA. INDUSTRIAL DE MONOFILAMENTOS●
Nylon 6 — São Paulo, São Paulo (monofil)

NOVELSPUMA - ESPUMA DE NYLON S.A.
Nylon 6 — São Paulo, São Paulo (yarn)

POLYENKA S.A.
Polyester — Americana, São Paulo *Diolen* (yarn)

POLYNOR S.A. INDÚSTRIA E COMÉRCIO DE FIBRAS SINTÉTICAS DA PARAÍBA
Polyester — João Pessoa, Paraíba *Amilon, Polynor* (yarn & staple)

RHODIA S.A.
Acetate — Santo André, São Paulo (yarn)
Acrylic — São José dos Campos, São Paulo *Crylor* (staple)
Nylon 66 — Santo André *Dropnyl, Rhodianyl* (yarn & staple)
São Bernardo do Campo, São Paulo *Celtrel BCF* (yarn)
Polyester — Santo André *Dropgal-Tergal, Tergal* (yarn & staple).
São Bernardo do Campo, *Fortrel* (yarn)
São José dos Campos *Bidim* (spunbonded)
Rayon — São José dos Campos (ind yarn & staple)

RHODIA NORDESTE S.A.
Polyester — Cabo, Pernambuco *Dropgal, Tergal* (yarn & staple)

SEARA IND. TÊXTIL LTDA.●
Nylon 6 — Londrina, Paraná (monofil)

SPUMAR S.A. INDÚSTRIA E COMÉRCIO●
Nylon 6 — São Paulo (yarn)

OLEFIN FIBER

ARTEPESCA - S.A. ARTIGOS DE PESCA DO NORDESTE Igarassu, Pernambuco (E & P monofil)

BRASIL VISCOSE S.A. Jundiapeba, São Paulo (P staple)

ETRÚRIA S.A. INDÚSTRIA DE FIBRAS E FIOS SINTÉTICOS Mairinque, São Paulo (P staple)

FADEMAC - FABRICA DE MATERIAIS DE CONSTR. S.A. Jacarei, São Paulo (P staple)

FITESA - FIAÇAO TÊXTIL DE EMBALAGENS PLÁSTICAS S.A. Guaiba, Rio Grande do Sul (P staple) & Porto Alegre, Rio Grande do Sul (P film)

INYLBRA S.A. TAPETES E VELUDOS Diadema, São Paulo (P staple)

MANAP - MANUFATURA NACIONAL DE PLÁSTICOS Osasco, São Paulo (P monofil)

MARCATTO S.A. IND. E COM. Jaragua do Sul, Santa Catarina (E & P monofil)

BRAZIL (continued)

MONOFIL - CIA. INDUSTRIAL DE MONOFILAMENTOS São Paulo, São Paulo (P monofil)
SEARA IND. TÊXTIL LTDA. Londrina, Paraná (E & P monofil)
SPUMAR S.A. INDÚSTRIA E COMÉRCIO São Paulo, *Fibrilene, Polylene, Polyplan, Prolene* (P yarn, staple & film)
TAPETELENE - INDÚSTRIA S.A. Pajucara/Maramguape, Cearé (P staple)
TINTORIA S.A. - BENEFICIAMENTO DE FIO (P yarn)

OLEFIN FILM FIBER, only

BRASMEN TOL CACAPAVA S.A., Cacapava, São Paulo
CACIQUE DE EMBALAGENS S.A. INDÚSTRIA E COMÉRCIO, Londrina, Paraná
C.A.T.A. - CIA. AMAZONIA TÊXTIL DE ANIAGEM S.A., Belém, Pará
CIA. FAB. YOLANDA S.A., Recife, Pernambuco
CIA. JAUENSE INDUSTRIAL, Jau, São Paulo
CIA. UNIÃO MANUFATORA DE TECIDOS, Rio de Janeiro
DICOPLAST S.A. INDÚSTRIA E COMÉRCIO DE PLASTICOS, Presidente Prudente, São Paulo
EMPLA - EMBALAGENS PLÁSTICAS S.A., Rio de Janeiro
FIBRASA IND. E COM. DE FIOS E EMBALAGENS S.A., Espirito Santio
FIBROTEX TECELAGEM DE FIBRAS S.A., São Paulo
IMPLASA - INDÚSTRIA DE PLÁSTICOS ZANIOLO S.A., São José dos Pinhais, Paraná
INDÚSTRIA TÊXTIL TSUZUKI LTDA., Suzano, São Paulo
IPLAC DO BRASIL S.A. PLÁSTICOS INDUSTRIAIS, Fortaleza, Ceará"
NOVOPLAST IND. E COM. DE PLÁSTICOS, Nova Odessa, São Paulo
PLABASA - PLÁSTICOS DA BAHÍA S.A., Salvador, Bahía
PLASMINAS - PLÁSTICOS MINAS LTDA., Tres Pontas, Minas Gerais
PLÁSTICOS DO PARANÁ LTDA., Londrina, Paraná
PLÁSTICOS LINIL S.A., Recife, Pernambuco
PLÁSTICOS INDÚSTRIA DE EMBALAGENS LTDA , Campinas, São Paulo
QUALITAS IND. E COM. LTDA., São Paulo
SACOPLAST/PLANOSA - PLASTICOS DO NORDESTE S.A., Natal, Rio Grande do Norte

GLASS FIBER

OCFIBRAS Rio Claro, São Paulo *Fiberglas*

BULGARIA

KOMBINAT "DIMITAR DOMOV"●

Acrylic	Burgas *Bulana* (staple)
Nylon 6	Vidin *Vidlon* (yarn)
Polyester	Yambol *Yambolen* (yarn, staple & tow)

KOMBINAT "SVILOSA"

Rayon	Svishtov (reg yarn & staple)

OLEFIN FIBER

KOMBINAT "DIMITAR DOMOV" Yambol" (P staple)

CANADA

BADISCHE CANADA LIMITED

Nylon 6	Arnprior, Ontario *Zefran* (yarn & staple)

CELANESE CANADA INC., FIBRES DIVISION ●

Acetate	Drummondville, Quebec (yarn)

CELANESE CANADA (MILLHAVEN) INC.

Polyester	Millhaven, Ontario *Fortrel* (yarn, staple, tow & fiberfill)

COURTAULDS (CANADA) LIMITED

Rayon	Cornwall, Ontario (staple)

DU PONT CANADA INC.●

Nylon 66	Kingston, Ontario *Antron, Cantrece, Du Pont* (yarn, staple & tow)
Polyester	Kingston *Dacron* (yarn)
Spandex	Maitland *Lycra* (fused multifil)

FIRESTONE TEXTILES CO. - A DIVISION OF FIRESTONE CANADA LTD. - LTEE.

Nylon 6	Woodstock, Ontario (yarn & monofil)

OLEFIN FIBER

AMOCO FABRICS CO. Brantford & Hawkesbury, Ontario, St. Jean, Quebec *Protel* (P yarn & staple, E & P monofil & P film)
CALKO MILLS LTD. Rivière du Loup, Quebec (P monofil)
CANADA WESTERN CORDAGE CO., LTD New Westminster, B.C. (P monofil)
DOON TWINES LTD. Kitchener, Ontario (P yarn, monofil & staple)
DU PONT CANADA INC. North Bay, Ontario (P film)
GUELPH TWINES LTD. Guelph, Ontario (P monofil & film)
NOVASTRAND St. John, New Brunswick (P monofil)
POLI-TWINE CORP. LTD. Belleville, Ontario & Saskatoon, Saskatchewan Polytie, PolyTwine, Spiralok (P monofil)
SCHLEGEL COMPANY CANADA Oakville, (P monofil)
STRUDEX FIBRES LTD., DIVISION OF KRAUS CARPET MILLS LTD. Waterloo, (P yarn & staple - captive)

OLEFIN FILM FIBER, only

FIBERWORLD, LTD., Hawkesbury, Ont.
POLYMER INTERNATIONAL (N.S.) LTD., Truro, N.S

GLASS FIBER

FIBERGLAS CANADA LIMITED Guelph, Ontario Fiberglas

CHILE

GOODYEAR DE CHILE, S.A.I.C.

Nylon 6	Maipú, Santiago (yarn & monofil)

INDUSTRIAS QUIMICAS GENERALES S.A.

Rayon	Quillota, Valparaiso (ind yarn & staple)

LANERA AUSTRAL S.A.

Polyester	Santiago (yarn, staple & tops)

MANUFACTURAS SUMAR S.A.

Nylon 6	El Pinar 172, Santiago *Crilobal* (yarn)
Polyester	El Pinar 172 *Poligal* (yarn & staple)

QUIMICA INDUSTRIAL S.A.

Polyester	Maipú, Santiago *Polycron* (staple & tops)

CHINA, PEOPLE'S REPUBLIC OF

Although reliable information on locations of man-made fiber plants in the People's Republic of China is not available, every effort has been made to make the following listing as possible.

RAYON and/or ACETATE PLANTS reported at: Amoy, Antung, Canton, Foshan, Kirin, Nanchang, Nanking, Paoting and Shanghai.

NYLON PLANTS reported at: Beijing, Hsinhsiang, Paoting Province, Jinzhou; Liaoyang; Pingdings; Shanghai; Shanyi; Sian; Sichuan; Sining; Tianjin; and Zhenjiang.

POLYESTER PLANTS reported at: Beijing, Changzhou; Jiangsu Province; Fangshen, Beijing Province; Guangzhou; Canton Province; Hangchow; Heilongjiang; Jinshan; Shanghai Province; Liaoyang; Nantong; Nanjing; Jiangsu Province; Shanghai; Sichuan; Taiyuan; Tianjin; Tientsin; Xinhu; Yizheng; and Zhenjiang.

ACRYLIC PLANTS reported at: Chenchiang, Harbin Province; Daquing; Lanzhou; Luda; and Shanghai.

NONCELLULOSIC PLANTS reported at: Beijing (vinal); Canton (vinyon); Chunking (vinyon); Foochow (vinyon); Lanzhou (olefin & vinal), Shanghai (vinyon); Shengli (vinyon); and Tientsin (vinyon).

The following three plants have been reported as producing glass fiber: Shanghai Glass Fiber Plant, Shanghai Tungfanghung Glass Fiber Plant and Tientsin Glass Fiber Plant.

COLOMBIA

CELANESE COLOMBIANA, S.A.
Acetate — Yumbo, near Cali, Valle del Cauca (yarn)
Nylon 6 — Sabaneta, Antioquia *Nylocel* (yarn)
Polyester — Yumbo *Fortrel* (yarn & staple)

COLTEFIBRAS S.A.
Polyester — Igatui, Antioquia* (yarn & staple)

ENKA DE COLOMBIA S.A.
Nylon 6 — Girardota, Antioquia *Enkalon* (yarn)
Polyester — Girardota *Terlenka* (yarn & staple)

FABRICA DE HILAZAS VANYLON S.A.
Nylon 6 — Barranquilla, Atlántico *Vanylon* (yarn & monofil)

POLIMEROS COLOMBIANOS S.A.
Polyester — Medellin, Antioquia *Primel* (yarn, staple, tow & tops)

ZYLETTE (LAFAYETTE)
Polyester — Bogotá (yarn)

OLEFIN FILM FIBER, only

COMPANIA NACIONAL DE EMPAQUES S.A., Medellin

PLASTICOS DE MAGDELENA LTDA., Santa Marta

POLYMER DE COLOMBIA S.A., Cartagena

COSTA RICA

OLYMPIC FIBERS, S.A.
Polyester — San Antonio de Belen (yarn)

CUBA

INDUSTRIAS CONSOLIDADAS DE MATANZAS, S.A.
Rayon — Matanzas (ind & reg yarn & staple)

CYPRUS

OLEFIN FIBER

LORDOS POLYSAC (LIMASSOL) LIMITED Limassol (P film)

CZECHOSLOVAKIA

CHEMICKÉ ZÁVODY JURAJA DIMITROVA, N.P.●
(GEORGE DIMITROV CHEMICAL WORKS, NATIONAL CORP.)
Rayon — Bratislava, Slovakia (reg yarn & staple)

CHEMLON, N.P. (CHEMLON, NATIONAL CORPORATION)
Nylon 6 — Humenné Slovakia *Chemlon* (yarn)

CHEMOSVIT, N.P. (CHEMOSVIT, NATIONAL CORPORATION)●
Nylon 6 — Svit, Slovakia, *Sviton, Svitontex* (yarn & staple)
Rayon — Svit (reg yarn)

SEVEROCESKÉ CHEMICKÉ ZÁVODY, N.P.
(NORTH BOHEMIAN CHEMICAL WORKS, NATIONAL CORP.)
Rayon — Lovosice, Bohemia, (ind yarn)

SILON, N.P. (SILON, NATIONAL CORPORATION)
Nylon 6 — Planá nad Luznići, Bohemia *Silon* (yarn & monofil)
Polyester — Planá nad Luznić *Tesil, Tevyro, Velana* (staple, tow & fiberfill)

SLOVENSKÝ HODVÁB, N.P.
(SLOVAKIAN FILAMENT YARN, NATIONAL CORPORATION)
Polyester — Senica nad Myjavou, Slovakia *Slotera* (yarn)
Rayon — Senica nad Myjavou (reg yarn)

SPOLANA, N.P. (SPOLANA, NATIONAL CORPORATION)
Rayon — Neratovice, Bohemia (staple)

OLEFIN FIBER

CHEMICKÉ ZÁVODY JURAJA DIMITROVA, N.P. Bratislava *Istrona, Labren, Nobelex* (P yarn & staple)

CHEMOSVIT, N.P. Svit *Prolen, Texizol* (P yarn & spunbonded)

JUTA, N.P. Úpice, Bohemia (P spunbonded)

OLEFIN FILM FIBER, only

JUTA, N.P. Adamov, Moravia and Bernartice u Trutnova, Dvur Králové, Jilemnice & Úpice, Bohemia

POVAZSKÉ CHEMICKÉ ZAVODY, N.P. Zilina, Slovakia

TECHNOLEN, N.P. Lomnice nad Popelkou, Bohemia

GLASS FIBER

SKLOPLAST, N.P. (SKLOPLAST, NATIONAL CORPORATION) Trnava, Slovakia (yarn, chopped strand & mat)

VERTEX, N.P. (VERTEX, NATIONAL CORPORATION) Litomysl, Bohemia (yarn, roving, mat & staple yarn)

DENMARK

OLEFIN FIBER

A/S FIBERTEX Aalborg (P staple)

ESBJERG TOVVAERKSFABRIK A/S Esbjerg *Westflex* (E & P monofil & film; P staple)

JACOB HOLM VARDE A/S Varde *Danaklon, IHS* (E & P staple & film), *Krenit* (P reinforcing fiber)

R.F.W. PLAST-INDUSTRI A/S Vejle (P film)

ROBLON A/S Frederikshavn (P film)

ECUADOR

ECUATORIANA DE TEJIDOS DE PUNTA
Polyester — Punta (yarn)

ENKADOR S.A.
Polyester — Sangolqui, Pichincha (yarn)

FIBRATEX S.A.
Polyester — Guayaquil, Guayas (yarn)

EGYPT

ESTABLISSEMENTS INDUSTRIELS POUR LA SOIE ET LE COTON S.A.A. (E.S.C.O.)

Rayon — Cairo (reg yarn)

MISR AL-AMIRIYA INDUSTRIAL FIBRE CO.

Polyester — Amiriya (yarn* & staple)

SOCIETE MISR POUR LA RAYONNE S.A.A. (MISR RAYON CO.)

Nylon 6 — Kafr-el-Dawar *Misrnylon* (yarn), *Misrnylon* (staple)
Polyester — Kafr-el-Dawar *Polymisr* (yarn)
Rayon — Kafr-el-Dawar (reg yarn & staple)

EL SALVADOR

OLEFIN FIBER

FILAMENTOS Y PERFILES, S.A. (FILPERSA) San Salvador *Duraplen* (E & P monofil)

SALVAPLASTIC, S.A. San Salvador (P monofil)

FINLAND

KEMIRA OY SÄTERI

Rayon — Valkeakoski (staple)

LAPPFIBER OY

Nylon 66 — Tornio (yarn)

OLEFIN FILM FIBER, only

MANILLA OY, Turku

PIIPPO OY, Lempäälä

GLASS FIBER

A. AHLSTROM OY GLASSFIBRE Karhula *Kuitulasi* (roving & mat)

FRANCE

CELLATEX (a subsidiary of Rhone-Poulenc-Textile)

Rayon — Givet, Ardennes; Grenoble, Isère (reg yarn)

COURTAULDS, S.A.

Acrylic — Pont du Leu, Coquelles, Pas-de-Calais *Courtelle* (staple)
Rayon — Pont du Leu (staple)

ETS NYSAM

Nylon 6 — St-Quentin, Aisne *Lilion* (yarn)

RHÔNE-POULENC-FIBERS (a subsidiary of Rhône-Poulenc-Textile)

Nylon 66 — Albi, Tarn; St-Laurent-Blangy, Pas-de-Calais, St. Quentin, Aisne & Valance, Drôme *Nylfrance* (yarn & staple)
Polyester — Gauchy, Aisne & Valence *Bidim* (spunbonded), *Tergal* (yarn & staple)

RHOVYL (a subsidiary of Rhône-Poulenc Textile)

Vinyon — Tronville-en-Barrois, Meuse *Clévyl, Rhovyl, Thermovyl* (yarn & staple)

SOCIETE CHOMARAT

Nylon 6 — Mariac (yarn - captive)

OLEFIN FIBER

PLASTIQUE DE ROUBAIX Roubaix (P film & staple)

SODOCA FABRICATION DE NONTISSES SYNTHETIQUES S.A.R.L. Neuf Brisach, Haut-Rhin (P spunbonded)

OLEFIN FILM FIBER, only

ETS. AMMANN & CIE. Saint-Louis

ETS. BATAILLE Rosendael

BIHR FRERES S.A. Xertigny

BOUSSAC SAINT FRERES S.A. Flixecourt

SEINE & LYS Paris

GLASS FIBER

OWENS-CORNING FIBERGLAS FRANCE L'Ardoise, Gard *Fiberglas*

SAINT-GOBAIN INDUSTRIES, DIVISION VERRE TEXTILE Chambéry, Savoie, *Silionne, Stratifil, Stratimat, Verrane*

GERMAN DEMOCRATIC REPUBLIC

DEUTSCHE DEMOKRATISCHE REPUBLIK (EASTERN)

(Those facilities indicated by # are part of the trust VEB Chemiefaserkombinat Schwarza "Wilhelm Pieck.")

VEB CHEMIEFASERKOMBINAT SCHWARZA "WILHELM PIECK"

Nylon 6 — Schwarza, Krs., Rudolstadt *Dederon* (yarn)
Rayon — Schwarza (staple)

CHEMIEFASERWERK "FRIEDRICH ENGELS"#

Acrylic — Premnitz, Krs. Rathenow *Wolpryla* (staple)
Nylon 6 — Premnitz *Dederon* (staple)
Polyester — Premnitz *Grisuten* (staple)
Rayon — Premnitz (reg yarn)

CHEMIEFASERWERK "WILHELM-PIECK-STADT" GUBEN#

Nylon 6 — Guben *Dederon* (yarn & monofil)
Polyester — Guben *Grisuten* (yarn)

KUNSTSEIDENWERK "CLARA ZETKIN," ELSTERBERG#

Rayon — Elsterberg, Krs. Greiz (reg yarn)

SACHSISCHES KUNSTSEIDENWERK "SIEGFRIED RADEL"#

Polyester — Pirna* (yarn)
Rayon — Pirna (ind, reg & cupra yarn)

SACHSISCHE ZELLWOLLE#

Rayon — Plauen (staple)

SPINNSTOFFWERK "OTTO BUCHWITZ"#

Rayon — Glauchau (staple)

ZELLSTOFF-UND ZELLWOLLWERKE WITTENBERGE#

Rayon — Wittenberge (staple)

VEB FILMFABRIK FOTOCHEMISCHES KOMBINAT

Acrylic — Wolfen, Krs. Bitterfeld *Wolpryla* (staple)
Rayon — Wolfen (ind yarn & staple)
Vinyon — Wolfen *Piviacid* (staple)

GLASS FIBER

VEB GLASSEIDENWERK Oschatz *Glasseidengewebe, Glasseiden-Roving, Glasseiden-Stapelbindermatten, Glasseiden-Twist, Glasseiden-Zwirn, Roving-Gewebe*

GERMANY, FEDERAL REPUBLIC OF

BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

BAYER A.G.

Acrylic — Dormagen *Bayer-Textilfaser Dralon* (yarn & staple)
Nylon 6 — Dormagen *Perlon-Draht* (monofil)
Spandex — Dormagen *Bayer-Textilfaser Dorlastan* (fused multifil)

BOLTA WERKE G.m.b.H.

Saran — Nürnberg *Bolta* (monofil)

DU PONT DE NEMOURS (DEUTSCHLAND)

Nylon 66 — Uentrop, Kreis Unna (yarn & staple)
Polyester — Uentrop *Dacron* (staple, tow & fiberfill)

ENKA A.G.

Nylon 6,66 — Obernberg *Enka Nylon* (yarn), *Enka Perlon* (yarn)
Polyester — Oberbruch & Obernburg *Diolen* (yarn)
Rayon — Kelsterbach, Oberbruch & Obernburg (ind & reg yarn)

E. HAHL KG●

Nylon 6 — Munderkingen (staple)

FASERWERKE LINGEN G.m.b.H.

Acrylic — Lingen (staple)

HOECHST A.G.

Acrylic — Kelheim/Donau *Dolan* (staple)
Polyester — Bad Hersfeld, Hessen & Bobingen/Augsburg-land *Trevira* (yarn, staple & spunbonded), *Trevira-Draht* (monofil)
Rayon — Kelheim/Donau (staple)

ICI (EUROPA) FIBRES G.m.b.H.

Nylon 66 — Östringen *Timbrelle* (yarn & staple)
Polyester — Östringen *Terylene* (yarn)

GERMANY, FEDERAL REPUBLIC OF (continued)

BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

KUNERT

Nylon 66	Deggendorf (yarn)
Polyester	Deggendorf (yarn)

LUTRAVIL SPINNVLIES●

Nylon 6	Kaiserslautern *Lutrabond* (spunbonded)
Polyester	Kaiserslautern *Lutradur* (spunbonded)

NORDDEUTSCHE FASERWERKE G.m.b.H.

Nylon 6/66	Neumünster *SIKS NYLON* (yarn), *SIKS PERLON* (yarn)
Polyester	Neumünster *Avitron* (yarn)

PHEONIX GUMMIWERK A.G.

Saran	Hamburg/Harburg *Harlan* (monofil)

HEINRICH REIHNOLD KG●

Nylon 6	Selbitz, Bayern (staple)

RHODIA A.G.

Acetate	Freiburg/Br. *RHIAKABEL* (tow)
Nylon 66	Freiburg/Br. & Rottweil a. N./Württ. *RHOA-fil Nyltest, RHOA-Spinnfaser, RHOA-tex HELANCA* (yarn & staple)
Polyester	Freiburg/Br. *RHOA-fil TERGAL, RHOA-tex TERGAL* (yarn)

SPINNSTOFFFABRIK ZEHLENDORF A.G.

Polyester	Berlin-Zehlendorf *Trevira* (yarn & staple)

WACKER-CHEMIE G.m.b.H.

Vinal	München-Burghausen *Wacker MP-Faser* (staple)

OLEFIN FIBER

J.F. ADOLFF A.G. Backnang (P film)

AMOCO FABRICS CO., DIVISION OF AMOCO (DEUTSCHLAND) G.m.b.H. Gronau (P film & staple)

J.H. BENECKE G.m.b.H. Plene *Corovin* (P spunbonded)

R.B.J. RUDOLF BILLERMANN KG Emsdetten (P yarn & staple)

CHEMISCHE WERKE HÜLS A.G. Marl, Kreis Recklinghausen, Westphalia *Vestolan* (E & P monofil)

DYNAMIT NOBEL A.G. Troisdorf, Bez. Köln *Trofil* (E & P monofil & tow)

DEUFIL Bergkamen (P yarn)

FASERWERKE BOTTROP G.m.b.H. Bottrop (P staple)

FÜSSENER TEXTIL A.G. Füssen (P film)

GEO. GLEISTEIN & SOHN Bremen-Vegesack (P film & monofil)

E. HAHL KG Munderkingen (P monofil)

RUDOLF HILLER KG (P monofil)

LUTRAVIL SPINNVLIES Kaiserslautern *Lutrasil* (P spunbonded)

HEINRICH REINHOLD KG Selbitz/Bayern (P staple)

STEEN Hamburg (P staple)

WESTFALIA SPINNEREI U. KUNSTOFFWERK SCHEM KG Minden (P monofil & film)

OLEFIN FILM FIBER, only

BAUMHÜTER G.m.b.H., Wiedenbrück

BREMER WOLL-KÄMMEREI, Bremen-Blumenthal

ERNST JAEGER, Düsseldorf-Reisholz

HEINZ G. JUNEMANN (NORDHESSISCHE HAARWARENFABRIK), Felsberg

GERMANY, FEDERAL REPUBLIC OF (continued)

KUSGA KUNSTOFFGARNE G.m.b.H., Mainz

POLYDRESS PLASTIC G.m.b.H., Michelstadt

POLYUNION KUNSTOFFWERK, Mesum

SCHILGEN, Emsdetten

SPOHN G.m.b.H., Freiburg

BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

B.T.F. TECKLENBORG & CO., Bremen-Grohn

DR. KARL WETEKAM & CO., Melsungen

GLASS FIBER

GEVETEX-TEXTILGLAS G.m.b.H., Aachen & Dortmund-Mengede *Gevetex*

SCHULLER GLASWERKE Westheim

GREECE

ETMA S.A.

Nylon 6/66	Athens (yarn)
Rayon	Athens (reg yarn)

HELLENIC SYTHETICS INDUSTRY

Polyester	Kalogreza (yarn)

POLYETMA LTD.

Polyester	Athens (yarn)

VOMVICRYL S.A. (affiliate of "Vomvix" S.A.)

Acrylic	Stylis, near Lamia (staple, tow & tops)

"VOMVIX" S.A.

Nylon 6/66	Athens (yarn)
Polyester	Athens (yarn)

OLEFIN FIBER

VIOFARM Argos (P staple)

OLEFIN FILM FIBER, only

ARIPLAST S.A. Athens

BIOSISAL Athens

DESSILA Piraeus

ELVISAK Athens

MARINE ROPE Athens

OLYMPIC ROPES Piraeus

SISAL ROPERY Salonika

C. VELLIS HEIRS S.A. Piraeus

VESY S.A. SYNTHETIC MATERIALS INDUSTRY Piraeus

GUATEMALA

HILOS SINTETICOS CENTROAMERICANOS, S.A.

Nylon 6	San José Pinula, Guatemala (yarn) (idle)

OLEFIN FIBER

CORDELERIA LA RAPIDA Guatemala, Guatemala (P monofil)

HONDURAS

OLEFIN FIBER

POLYMER, (subsidiary of United Brands) San Pedro Sula (P film)

HONDURAS (continued)

OLEFIN FIBER

KENDER JUTA TEXTILIPARI V. Budapest (P film)
KENDERFONÓ ÉS SZÖVÖIPARI V. SZEGED Szeged (P film)
MAGYAR VISCOSAGYÁR Nyergesujfalu *Popnil* (P staple)
SOPRONI SZÖNYEGGYÁR Sopron *Sopilen* (P yarn)
TISZA CHEMICAL COMBINE Lenin Varas (P staple)

INDIA

THE AHMEDABAD MFG. & CALICO PRINTING CO. LTD., CALICO POLYESTER FIBRE DIV.
Polyester — Baroda, Gujarat *Ilacron* (staple)

ANDHRA PRADESH RAYONS LTD.
Rayon — Kamalapuram, Warangal District, Andhra Pradesh* (staple)

THE BARODA RAYON CORPORATION LIMITED
Nylon 6 — Udhna, Gujarat *Snialon* (yarn)
Polyester — Udhna *Sniater* (yarn)
Rayon — Udhna (reg yarn)

BONGAIGAON REFINERY AND PETROCHEMICALS LTD.
Polyester — Goalpara, Assam* (staple)

CENTURY ENKA LIMITED
Nylon 6 — Bhosari, Pune, Maharashtra* *Enkalon* (yarn)
Polyester — Bhosari (yarn)

CENTURY RAYON (Prop.: The Century Spg. & Mfg. Co. Ltd.)
Rayon — Kalyan, near Bombay, Maharashtra (ind & reg yarn)

CHEMICALS & FIBRES OF INDIA LIMITED
Polyester — Thane, near Bombay, Maharashtra *Terene* (staple)

DOSHI SYNTHETICS
Polyester — Kandla, Gujarat* (yarn)

GARWARE NYLONS LIMITED
Nylon 6 — Pimpri, Pune, Maharashtra* *Garware* (yarn & monofil)
Polyester — Pimpri (yarn)

THE GWALIOR RAYON SILK MFG. (WVG) CO. LIMITED
Rayon — Birlagram, Nagda, Madhya Pradesh & Birlakootoam, Mavoor, Kerala (staple)

INDIAN ORGANIC CHEMICALS LIMITED
Polyester — Manali, Madras, Tamil Nadu *Futura* (staple)

INDIAN PETROCHEMICALS CORP. LTD.
Acrylic — Vadodara, Baroda, Gujarat *Cashmilon* (staple)

THE INDIAN RAYON CORPORATION LIMITED
Rayon — Veraval, Gujarat (reg yarn)

THE INDUSTRIAL PROMOTION & INVESTMENT CORPORATION OF ORISSA LTD.
Polyester — Orissa* (staple)

J.K. RAYON, J.K. PURI
Rayon — Kanpur, Uttar Pradesh (reg yarn)

J.K. SYNTHETICS LIMITED
Acrylic — Kota, Rajasthan *Jayacrylic* (staple)
Nylon 6 — Kota *Jayanka, Jaycord, Jaykalon* (yarn, monofil & staple)
Polyester — Calcutta, Kota, Orissa* *Jakaylene* (yarn & staple)

INDIA (continued)

JAGITJIT COTTON TEXTILE MILLS LTD.
Nylon 6 — Hoshiarpur, Punjab (yarn)

KANHAYA POLYSYNTHETICS
Polyester — Gujarat, Kandla (staple)

KARNATAKA STATE INDUSTRIAL INVESTMENT AND DEVELOPMNET CORPORATION LIMITED
Polyester — Karnataka* (staple)

KESORAM RAYON (Prop.: Kesoram Industries and Cotton Mills, Ltd.)
Rayon — Nayasarai, Hooghly, West Bengal (reg yarn)

M.P. STATE INDUSTRIAL DEVELOPMENT CORPORATION LTD.
Polyester — Madhya Pradesh* (staple)

MADURA COTAS LTD.
Nylon 6 — Maedak, Andhra Pradesh* (yarn)

MODIPON LIMITED
Nylon 6 — Modinagar, Uttar Pradesh *Modipon* (yarn)
Polyester — Modinagar (yarn)
Rayon — (staple*)

THE NATIONAL RAYON CORPORATION LIMITED
Nylon 6 — Mohone-Kalyan, near Bombay, Maharashtra* *N.R.C.* (yarn)
Rayon — Mohone-Kalyan (ind & reg yarn)

NIRLON SYNTHETIC FIBRES & CHEMICALS LIMITED
Nylon 6 — Bombay, Maharashtra *Nicord, Nirlon* (yarn & monofil)
Polyester — Bombay *Nirester* (yarn)

ORKAY SILK MILLS PVT. LTD.
Polyester — Patalganga, Maharasntra* (yarn)

P.O. PETROCHEMICALS
Acrylic — Vadodara, Gujarat* (staple)
Polyester — Baroda, Gujarat* (staple)

PASUPATI ACRYLON LIMITED
Acrylic — Moradabad, Uttar Pradesh* (staple)

PETROFILS COOPERATIVE LIMITED
Polyester — Jawaharnagar, Baroda, Gujarat (yarn)

PRADESHIYA INDUSTRIAL INVESTMENT CORPORATION OF UTTAR PRADESH
Polyester — Uttar Pradesh* (yarn & staple)

PUNJAB STATE INDUSTRIAL DEVELOPMENT CORP. LTD.
Polyester — Punjab (staple)

RELIANCE TEXTILE INDUSTRIES LTD.
Polyester — Patalganga, Maharashtra* (yarn)

SHREE SYNTHETICS LIMITED
Nylon 6 — Naulakhi, Ujain, Madhya Pradesh *Shreelon* (yarn)
Polyester — Naulakhi *Shreester* (yarn)

SHRIRAM FIBRES LIMITED
Nylon 6 — Manali, Madras, Tamil Nadu *Tufcord* (yarn)

SHRIRAM RAYONS
Rayon — Kota, Rajasthan (ind yarn)

THE SIRSILK LIMITED
Acetate — Sirpur-Kaghaznagar, Andhra Pradesh (yarn & staple)

SOUTH INDIA VISCOSE LIMITED
Rayon — Sirumughai, near Mettupalayam, Tamil Nadu (reg yarn & staple)

INDIA (continued)

STRETCH FIBRES (INDIA) LIMITED
Nylon 6 — Nagpur, Maharashtra *SF* (yarn)
SWADESHI POLYTEX LIMITED
Polyester — Gaziabad, Uttar Pradesh *Jallene* (staple)
TAMIL NADU INDUSTRIAL DEVELOPMENT CORP.
Polyester — Madras, Tamil Nadu* (staple)
Rayon — Madras* (staple)
THE TRAVANCORE RAYONS LIMITED
Rayon — Rayonpuram, Kerala (reg yarn)
TUNGABHADRA FIBRES LTD.
Rayon — Tungabhadra, Andhra Pradesh (staple)

OLEFIN FIBER

ACME INVESTMENTS LTD. Panki Industrial Area, Kanpur* (P yarn)
ANIL KUMAR JAIN Ankleshwar, Gujarat* (P yarn)
GUPTA NEEDLE INDUSTRIES PVT. LTD. Dharuhera, Haryana* (P yarn)
INDO SYNTHETICS CORP. (P yarn*)
J.K. BHAGAT Bhiwand, Alwar, Rajasthan* (P yarn)
KALYANI ASBESTOS CEMENT PVT. LTD. Kalol, Gujarat* (P yarn)
NEOMER LIMITED Baroda, Panchmahal, Gujarat *Propilon* (P staple)
NIAGARA INTERNATIONAL (P yarn*)
POLYPROP INDUSTRIES Dharuhera, Haryana* (P yarn)
RAJENDRA V. PATEL Cambay, Gujarat* (P yarn)
SANJEEV SHRIYA Uttar Pradesh* (P yarn)

GLASS FIBER

FIBREGLASS PILKINGTON LIMITED Thane, near Bombay, Maharashtra
U.P. TWIGA FIBREGLASS Sikandarabad, Uttar Pradesh

INDONESIA

P.F. FIBRES e CHEMICALS
Nylon (yarn)
P.T. BERKAT INDAH AGUNG
Rayon — Tangerang, West Java* (staple)
INDONESIA PENELITIAN SELULOSA (Cellulose Research Institute)
Rayon — Bandung (pilot plant) (ind & reg yarn & staple)
P.T. INDO-BHARAT RAYON
Rayon — Desa Cilangkap, Purwakarta (staple)
P.T. INDONESIA ASAHI CHEMICAL
Nylon 6 — Jatiluhur, Purwakarta, West Java (yarn)
P.T. INDONESIA TORAY SYNTHETICS
Nylon 6 — Tangerang, West Java (yarn)
Polyester — Tangerang (staple)
P.T. INTI
Rayon* — West Kalimanton (staple)
P.T. INDUSTRI SANDANG I
Polyester — Tangerang* (staple)
P.T. INDUSTRI SANDANG II
Rayon — South Sumatra* & West Kalimantan* (staple)
P.T. KUMA FIBER (P.T. Kuraray Manunggal Fibre Industries)
Polyester — Cikokol, Tangerang, West Java (staple)
P.T. SHINTA-INDAH DJAYA
Nylon 6 — Tangerang, West Java (yarn)
Polyester — Tangerang *Shinta* (yarn)

INDONESIA (continued)

P.T. SOUTH PACIFIC VISCOSE
Rayon — Purwakarta, West Java (staple)
P.T. SUSILIA INDAH SYNTHETIC FIBRES INDUSTRIES
Polyester — Tangerang, West Java (yarn)
P.T. TEXMACO TAMAN SYNTHETIC
Polyester — Kalirwungu Kendal, West Java (yarn)
P.T. TIFICO (P.T. Teijin Indonesia Fibre Corp.)
Polyester — Tangerang, West Java (yarn & staple)
P.T. TOLARAM
Polyester — (yarn)
P.T. TRI REMPOA SOLO SYNTHETIC
Polyester — Rempon, Tangerang, West Java* (staple)
P.T. YASINTA
Polyester — Tangerang, West Java (yarn)
P.T. VASTEX BIMA INDUSTRIES
Polyester — Jalan Gedebage Ujungberung, Bandung (yarn)
RAUMAQ ENTERPRISES
Nylon — (yarn)

IRAN

PARSYLON CORPORATION
Nylon 6 — Khoram-Abad* (yarn)
POLYACRYL IRAN CORPORATION
Acrylic — Isfahan (staple)
Polyester — Isfahan (yarn & staple)
SHERKAT SAHAMI ALIAF
Nylon 6 — Tehran *Aliaf* (yarn)

OLEFIN FIBER

JAHANCITT SPINNING & WEAVING CO. Tehran (P film)

IRAQ

HINDIYA RAYON FACTORY
Rayon — Hindiya (reg yarn & staple)

IRELAND, REPUBLIC OF (EIRE)

ASAHI SYNTHETIC FIBRES (IRELAND) LTD.
Acrylic — Ballina, Mayo *Cashmilon* (staple)
LIRELLE (IRELAND) LTD. (A Division of Unifi, Inc.)
Polyester — Letterkenny *Lirelle* (yarn)
WELLMAN INTERNATIONAL LTD.
Nylon 6 & 66 — Mullagh, Kells, Meath, *Wellon* (staple)
Polyester — Mullagh *Fibrell, Wellene* (staple)

OLEFIN FIBER

F. DRAKE (IRELAND) LTD. Moate, Westmeath (P staple)
J. & L.F. GOODBODY (SYNTHETICS) LTD. Clara, Offaly (P yarn & film)

OLEFIN FILM FIBER, only

IRISH POLYSACKS LTD. Blarney, Cork
IRISH ROPES LTD. Newbridge, Kildare
POLYTEX LTD

IRELAND, REPUBLIC OF (EIRE) (continued)

KANEGAFUCHI CHEMICAL INDUSTRY CO., LTD.
Modacrylic — Takasago *Kanecaron, Kanekalon* (staple & tow)

KOHJIN CO., LTD.
Polychlal — Yatsushiro *Cordelan* (staple)
Rayon — Yatsushiro (staple)

KURARAY CO., LTD.
Polyester — Saijo & Tamashima *Kuraray Polyester* (yarn & staple)
Rayon — Kurashiki, Saijo & Tamashima (reg yarn)
Vinal — Okayama *Cremona, Kuralon* (yarn, monofil & staple)

KUREHA CHEMICAL INDUSTRY CO., LTD.
Saran — Kaibara & Mibu *Krehalon* (yarn, monofil & staple)
Vinyon — Mibu *Vicion* (monofil)

MITSUBISHI ACETATE CO., LTD.
Acetate — Toyama (yarn & tow)
Triacetate — Toyama (yarn)

MITSUBISHI RAYON CO., LTD.●
Acrylic — Otake *Finel, Silpalon, Vonnel* (yarn & staple)
Polyester — Toyohashi *Soluna* (yarn), Lunasce (staple)

NIPPON ESTER CO., LTD. (subsidiary of Unitika, Kanebo and Mitsubishi Chemical Industry)
Polyester — Okazaki & Sabae *Kanebo Ester, Unitika Ester* (yarn & staple)

NISSHINBO INDUSTRIES, INC.
Rayon — Tokushima (staple)
Spandex — Tokushima *Mobilon*

NITIVY CO., LTD.
Vinal — Fujieda *Niti-Vilon, Solvron, Vilon* (yarn)

NITTO BOSEKI CO., LTD.● (See Ube-Nitto Kasei)
Rayon — Fukuyama (staple)

OMIKENSHI CO., LTD.
Rayon — Kakogawa (staple)

TEIJIN LTD.
Aramid — Iwakuni *Teijinconex* (staple)
Nylon 6 — Mihara *Teijin Nylon* (yarn)
Polyester — Ehime, Iwakuni, Matsuyama & Tokuyama *Teijin-Tetoron* (yarn & staple)
Vinyon — Iwakuni *Teviron* (yarn)

TEIJIN ACETATE LTD. (subsidiary of Teijin Ltd.)
Acetate — Matsuyama (yarn)

TOHO BESLON CO., LTD.
Acrylic — Mishima *Belson* (staple & tow)

TOHO RAYON CO., LTD.
Rayon — Tokushima *Tovis* (staple)

TORAY INDUSTRIES, INC.
Acrylic — Ehime *Toraylon* (staple)
Fluoro — Ehime (pilot plant) *Toyoflon* (yarn)
Nylon 6 — Aichi, Ishikawa*, Nagoya, Okazaki, Otsu & Shiga *Amilan, Toray Nylon* (yarn & staple)
Nylon 6/66 copolymer — Aichi *Tapilon* (yarn)
Nylon 66 — Aichi *Promilan* (yarn)
Polyester — Ehime, Ishikawa & Okazaki *Toray Tetoron* (yarn & staple)

TORAY-MONOFILAMENT CO., LTD.
Nylon 6 — Okazaki *Toray Nylon* (monofil & staple*)

TOYO CHEMICAL CO., LTD.
Vinyon — Ofuna *Envilon* (yarn & monofil)

TOYO PRODUCTS CO., LTD.
Spandex — Shiga *Opelon* (fused multifil)

IRELAND, REPUBLIC OF (EIRE) (continued)

TOYOBO CO., LTD.●
Nylon 6 — Tsuruga *Toyobo Nylon* (yarn)
Polyester — Iwakuni & Tsuruga *Toyobo Ester* (yarn & staple)
Promix — Tsuruga *Chinon* (yarn)
Rayon — Iwakuni *Tuftel* (staple)
Spandex — Tsuruga *Espa*

TOYOBO PETCORD CO., LTD.
Polyester — Tsuruga *Toyobo Petcord* (yarn)

UNITIKA LTD.
Nylon 6 — Uji *Unitika* (yarn, monofil & staple)
Polyester — Okazaki *Marix* (ind yarn & spunbonded)

UNITIKA KASEI CO., LTD.
Vinal — Sakoshi (Akoh City) *Mewlon* (yarn, monofil & staple)

UNITIKA RAYON CO., LTD.
Rayon — Okazaki & Uji (ind & reg yarn)

YOSHIDA KOGYO K.K.
Polyester — Kurobe (yarn)

OLEFIN FIBER

CHISSO POLYPRO FIBER CO., LTD. Moriyama *Chisso Polypro, ES Fiber* (P yarn & staple)
DAIWABO CO., LTD. Hanma *Daiwabo Polypro, NBF Fiber* (E & P staple)
HAGIHARA INDUSTRY CO., LTD. Kurashiki (E monofil & film)
HIRATA SPINNING CO., LTD. Yokkaichi *Hiralon* (E & P yarn & monofil)
INABA SEIKO, LTD. Gamagori (E monofil)
KANEYA SEIKO, LTD. Hokkaido & Kushiro (P monofil)
KUREHA CHEMICAL INDUSTRY CO., LTD. Mibu, *Kureha Polypropylene* (P monofil)
MARUAI CO., LTD. Toyohashi (E monofil)
MITSUBISHI RAYON CO., LTD. Toyohashi *Mitsubishi Pylen* (P yarn & monofil)
MITSUI TOATSU CHEMICALS, INC. Iwakuni (Pilot Plant) & Nagoya *Hi-Zex* (E monofil)
NAGANO KAKO CO., LTD. Nagano (E monofil)
SHOWA POLYMER CO., LTD. Ibaraki (E monofil & film)
TAI-RAY CO., LTD. Mito *Danzex, Danzex Lite, Lipion* (E monofil, P yarn & monofil)
TANIYAMA CHEMICAL INDUSTRY CO., LTD. Okayama *Tankalon* (E monofil)
TOA WOOL SPINNING & WEAVING CO., LTD. Tomari *Toabo Polypro* (P staple)
TONEN SEKIYUKAGAKU K.K. (TONEN PETROCHEMICAL CO., LTD.) Kawasaki *Tapyrus* (P spunbonded)
TOYOBO CO., LTD. Osaka (Pilot Plant) (E monofil)
UBE-NITTO KASEI CO., LTD. Fukuyama & Gifu *Sun Line, Ube-Nitto Polypro* (E monofil & P yarn, monofil & staple)

OLEFIN FILM FIBER, only

DAIDO KASEI Osaka
FUJIMOTO SANGYO Osaka
OKAMOTO CHEMICAL Ehime
SAKAI KASEI Osaka
SANSO JUSHI Yokkaichi
SANTO CHEMICAL Aichi
SEKISUI CHEMICAL Amagasaki & Nara

ISRAEL

ISRAEL CHEMICAL FIBRES LIMITED
Acrylic — Ashdod (staple & tow)
NILIT
Nylon 66 — Migdal Ha-Emek (yarn)
Polyester — Migdal Ha-Emek (yarn)

ITALY

ALBATESSILE S.p.A.
Polyester — Alba, Piemonte (yarn)
ANICFIBRE S.p.A.
Acrylic — Ottana & Porto Torres, Sardegna *Euroacril* (staple & tow)
Nylon 6 — Patrica, Lucania *Nivion* (yarn & staple)
Polyester — Ottana & Patrica *Fidion* (staple & tow)
Polyesteramide — Patrica (pilot plant) (yarn & staple)
AQUAFIL S.p.A.
Nylon 6 — Arco di Trento, Trentino *Aqualon* (yarn)
Polyester — Arco di Trento (yarn)
BEMBERG S.p.A.
Nylon 6 — Gozzano, Piemonte *Ortalion* (yarn)
Rayon — Gozzano (cupra yarn)
CARPOL S.p.A. (affiliate of Anicfibre)
Nylon 6 — Forlì, Emilia Romagna (yarn)
FILATURA DI VAL LESINA S.p.A.
Polyester — Andalo Valtellino, Lombardia *Valena* (yarn)
FIMALON S.p.A.
Nylon 66 — Castelnuovo Valsugana, Trentino Alto Adige (yarn)
FORTEX SIDAC S.p.A.
Nylon 6 — Forlì, Emilia Romagna *Forlion* (yarn)
FRATELLI FRANCHI S.p.A.
Nylon 6 — Canapale, Toscana *Frankilon* (yarn)
Polyester — Canapale *Frankilene* (yarn)
MONTEFIBRE GROUP●
INDUSTRIE TESSILI VERCELLI S.p.A.
Acetate — Vercelli, Piemonte (yarn)
SOCIETA ITALIANA POLIESTERE S.p.A.
Polyester — Acerra, Campania *Terital* (yarn, staple & tow)
SOCIETA ITALIANA PRODOTTI ACRYLIC S.p.A.
Acrylic — Porto Marghera, Veneto *Leacril* (staple & tow)
NOVACETA S.p.A.
Acetate — Magenta, Lombardia (yarn)
RADICI FIL S.p.A.
Nylon 6 — Casnigo, Lombardia *Radital* (yarn & staple)
SETTE STELLE
Nylon 6 — Castelgoffredo, Lombardia (yarn)
SNIA FIBRE S.p.A.
Acrylic — Cesano Maderno, Lombardia, Villacidro, Sardegna *Velicren, Velicren F.R.* (staple & tow)
Nylon 6 & 66 — Castellaccio, Lazio; Cesano Maderno & Varedo, Lombardia; Villacidro; Napoli, Campania *Coro Lilion Souple, Lilion Styl* (yarn, staple & tow)
Polyester — Napoli, *Wistel, Wistel F.R.* (yarn)
Rayon — Rieti, Lazio (reg yarn)
SOCIETA INDUSTRIALE CREMONESE S.p.A.
Rayon — Pizzighettone, Lombardia (ind yarn)

ITALY (continued)

TEXTILE PRODUKTE
Nylon 6 — Villa D'Ogna, Lombardia (yarn & staple)
TORCITURA DI BORGOMANERO S.p.A.
Nylon 6 — Milano, Lombardia *Borgolon* (yarn)

OLEFIN FIBER

EUROFIL Gandino, Lombardia (P staple)
FILATURA I DELEBIO S.p.A. Delebio, Lombardia *Delebion* (P yarn)
FILLI FRANA Casnigo, Lombardia (P staple & film)
I.T.S. Legnano, Lombardia (P yarn)
HIMONT ITALIA S.p.A. (Formerly Merak S.p.A. and Neofil S.p.A.) Terni, Umbria *Meraklon* (P yarn & staple)
NOVASAR Caronno Pertusella, Lombardia (P yarn & staple)
POLYMECON Zibido S. Giacomo, Lombardia (P staple & film)
SERGEL Casnigo, Lombardia (P staple & film)
TEXTILE PRODUKTE Villa D'Ogna, Lombardia (P staple)

OLEFIN FILM FIBER, only

CARPET BACKING S.p.A. Ceniga
I.T.P.
LICANA NORD S.p.A. Cassano d'Adda (Milano)
DE MAGISTRIS EMILIO Bagnolo Cremasco
MILANPLAST s.r.l. Milano
MOPLEFAN S.p.A. Milano
NEOFIBRE s.r.l. Lendinara
SACHIM (MUMMOLO) Bari
S.E.A.L. S.p.A. Milano
S.I.S.A.L. S.p.A. Piacenza
STIROSIR S.p.A. Milano
TESSITURA LOMBARDA DI CONSONNI ELIA ALBIATE

TEXTILE GLASS FIBER

MONTEDISON Vado Ligure, Liguria
VETROTEX ITALIA Besana Brianza, Lombardia (yarn)

JAPAN

ASAHI CHEMICAL INDUSTRY CO., LTD.
Acrylic — Fuji *Cashmilon, Pewlon* (yarn & staple)
Nylon 6 6 — Moriyama & Nobeoka *Asahi Kasei Nylon, Leona* (yarn, monofil & spunbonded)
Polyester — Nobeoka *Asahi Kasei Ester* (yarn)
Rayon — Nobeoka (reg & cupra yarn, cupra staple & cupra spunbonded)
Saran — Suzuka (yarn, monofil & staple)
Spandex — Moriyama *Roica*
DAIWABO CO., LTD.●
Rayon — Masuda (staple)
FUJI SPINNING CO., LTD.
Rayon — Toyo (staple)
Spandex — Kozakai *Fujibo Spandex*
JAPAN EXLAN CO., LTD.
Acrylic — Saidaiji *Exlan* (staple)
KANEBO RAYON, LTD.
Rayon — Hofu (staple)
KANEBO SYNTHETIC FIBERS, LTD.
Acrylic — Hofu *Kanebo Acryl* (staple)
Nylon 6 — Hofu *Kanebo Nylon* (yarn)
Polyester — Hofu & Sabae *Kanebo Polyester* (yarn)
Spandex — Hofu *Kanebo Loobell*

JAPAN (continued)

TOYAMA Chiba
WAKO SPINNING CO. Gifu
YAMAJIN TEXTILE Fukui

GLASS FIBER

ASAHI FIBER GLASS CO., LTD. Ibaraki & Shonan *Glasslon*
ASAHI-SCHWEBEL CO., LTD. Moriyama
CENTRAL GLASSFIBER CO., LTD. Matsusaka
FUJI FIBER GLASS CO. Moka
KANEBO, LTD. Gunma *Textoglass*
NIPPON GLASS FIBER CO., LTD. Ibaraki & Tsu *Micro Glass*
THE NIPPON MINERAL FIBER MFG. CO. Tarui & Yuki *Superfine*
NITTO BOSEKI CO., LTD. Fukushima *Iceberg*
PARAMOUNT GLASS MFG. CO., LTD. Koriyama & Suzuka *Fether Glass*
UNITIKA U.M. GLASS CO., LTD. Kyoto *Unitika U.M.*

KENYA

AFRICA SYNTHETIC FIBER LTD.
Nylon 6 — Thika (yarn)
Polyester — Thika (staple)
JAYDEES KNITTING LTD.
Polyester — Nairobi (yarn)
KENYA FIBRE CORPORATION LTD.
Polyester — Nanyuki (yarn & staple)
SUN FLAG LTD.
Polyester — (yarn)

OLEFIN FIBER

UNISACK LTD. Thika (P film)

KOREA
PEOPLE'S DEMOCRATIC REPUBLIC OF (NORTH)

A number of man-made fiber plants are said to be operating in North Korea (see June 1970 *Organon* issue, page 113); however, no data for this country are recorded in any table of this issue due to lack of reliable information.

KOREA
REPUBLIC OF (SOUTH)

CHEIL SYNTHETIC TEXTILES COMPANY
Polyester — Kumi *Elson* (yarn & staple)
DAEHAN SYNTHETIC FIBER COMPANY
Polyester — Ulsan *Acelan* (yarn & staple)
GORYEO NYLON CORPORATION LTD.
Nylon 6 — Kyungsan Kun *Kolon* (yarn)
HANIL SYNTHETIC FIBER INDUSTRIAL COMPANY
Acrylic — Masan *Hanilon* (staple)
JEIL SYNTHETIC FIBERS COMPANY●
Polyester — Seoul *Oplen* (yarn)
KOHAP, LTD.●
Nylon 6 — Shihung *Palmylon* (yarn & staple)
Polyester — Shihung *Palmylon* (yarn & staple)

KOREA

KOLON INDUSTRIES INC.
Nylon 6 — Kumi & Taegu *Kolon* (yarn)
Polyester — Kumi *Kolon* (yarn)
SAMYANG COMPANY, LTD.
Polyester — Chunju *Triron* (yarn & staple)
SUNKYONG FIBRES LTD.
Acetate — Suwon *Sunkyong* (yarn & tow)
Polyester — Suwon & Ulsan *Sunkyong* (yarn & staple)
TAEKWANG INDUSTRIAL COMPANY
Acrylic — Ulsan *Acelan* (staple)
Spandex — Ulsan *Acelan* (yarn)
TONGKOOK FIBRES LTD.
Polyester — Kumi* (yarn)
TONGYANG NYLON COMPANY
Nylon 6 — Anyang & Ulsan *Toplon* (yarn)
Polyester — Ulsan *Toplon* (yarn)
TONGYANG POLYESTER COMPANY
Polyester — Ulsan *Toplon* (yarn)
WONJIN RAYON COMPANY, LTD.
Rayon — Donong *Coray* (reg yarn & staple)

OLEFIN FIBER

JEIL SYNTHETIC FIBERS COMPANY Seoul *Oplene* (P yarn & staple)
KOHAP, LTD. Shihung *Happylon, Pylon* (P staple)
KUMSUNG SYNTHETIC FIBER CO., LTD. Seoul *Hopelon, Polon* (P staple) (idle)

LIBYA

LIBYA NATIONAL OIL CORPORATION (LINOCO)
Nylon 6 — Marsa Al-Brega* (yarn)
Polyester — Marsa Al-Brega* (staple)

LUXEMBOURG

TECHNOFIBRES
Polyester — Mertert (yarn)
Production and capacity data are combined with Belgium and the Netherlands under "Benelux" on page 107-108.

OLEFIN FIBER

DU PONT FIBRES S.A. Contern-Hesperange *Typar* (P spunbonded)

MALAYSIA

PENFIBRE SDN. BHD.
Polyester — Penang (staple)

MALTA

NYLON KNITTING CO. LTD.
Nylon 6 — Qormi (yarn)
Production and capacity data are combined with Italy.

MEXICO

CELANESE MEXICANA, S.A.

Acetate	Ocotlán, Jalisco (yarn & staple)
Acrylic	Zacapu, Michoacán (staple, tow & tops)
Nylon 6	Ocotlán & Toluca, México *Duracel, Nycel* (yarn & staple)
Polyester	Ocotlán, Querétaro, Querétaro & Toluca *Crolan* (yarn & staple)

CELULOSA Y DERIVADOS, S.A.

Acrylic	Atequiza, Jalisco *Crysel* (staple, tow & tops)
Rayon	Monterrey, Nuevo León (ind & reg yarn)

FIBRAS QUIMICAS, S.A.

Nylon 6	Monterrey, Nuevo León *Supernylon Cydsa* (yarn & monofil)
Polyester	Monterrey *Terlenka* (yarn)

FIBRAS SINTETICAS, S.A.

Acrylic	Cotaxtla, Veracruz *Fisisa* (staple, tow & tops)
Nylon 6	Cotaxtla *Fisisa* (yarn & monofil)
Polyester	Cotaxtla & México *Fisisa* (yarn & staple)

FIBRASOMNI, S.A.●

Nylon 6	Ixtapalapa, D.F. *Omni-Nylon* (monofil)
Saran	Ixtapalapa *Omni-Saran* (monofil)

FINACRIL, S.A.

Acrylic	Altamira (staple, tow & tops)

INDUSTRIAS PETROQUIMICAS MEXICANAS, S.A.

Polyester	El Salto, Jalisco *Inpetmex* (yarn)

KIMEX, S.A.

Nylon 6	Tlalnepantla, México *Aztecron* (yarn)
Polyester	Tlalnepantla, *Kintrel* (yarn)

NYLON DE MEXICO, S.A.

Nylon 6	La Leona, Nuevo León, *Nylfil* (yarn & staple)
Polyester	La Leona *Delcron* (yarn, staple, tow & fiberfill)
Spandex	La Leona *Likra* (fused multifil)

OLEFIN FIBER

FIBRASOMNI, S.A. Ixtapalapa, D.F. *Politen-Omni* (E monofil), *Polyprop-Omni* (P yarn & monofil)

INDUSTRIAS POLIFIL, S.A. Ixtacuixtla, Tlaxcala *Pliana* (P yarn & staple)

PLASTICOS INDUSTRIALIZADOS, S.A. Monterrey, Nuevo León (P staple)

OLEFIN FILM FIBER, only

HILOS Y CORDELES, S.A. Tlalnepantla, México

PLASTICEL, S.A. Monterrey, Nuevo León *(Plasticel)*

POLISAC, S.A. (affiliate of Nylon de México, S.A.), Guadalajara, Jalisco *(Polisac)*

GLASS FIBER

VITRO-FIBRAS, S.A. Zacatenco, D.F. *Vitro-Fibras*

NETHERLANDS

DU PONT DE NEMOURS (NEDERLAND) N.V.

Spandex	Dordrecht *Lycra* (fused multifil)

ENKA B.V.

Aramid	Arnhem, Emmen *Arenka* (yarn)
Nylon 6	Emmen *Enka Perlon, Enkalon* (yarn)
Polyester	Emmen *Diolen, Terlenka* (yarn & staple)
Rayon	Arnhem (ind yarn) & Ede (reg yarn)

OLEFIN FIBER

LANKHORST TOUWFABRIEKEN B.V. Sneek *Tiptolene* (E monofil & P film)

T.T.C. POLYOLEFINS B.V. Nijverdal (P monofil, yarn & staple)

N.V. VERTO Rotterdam (P film)

NETHERLANDS (continued)

GLASS FIBER

SILENKA B.V. Hoogezand (Groningen) *Silenka*

Cellulosic production and capacity data are combined with Belgium on page 111-112. Noncellulosic production and producing capacity data are combined with Belgium and Luxembourg under "Benelux" on page 107-108.

NICARAGUA

OLEFIN FIBER

MANUFACTURERA CENTRO AMERICANA S.A. (MACEN) Managua (P film)

NIGERIA

NICHEMTEX INDUSTRIES LTD.

Polyester	Ikorodu, Lagos *Nigerlene* (yarn & staple)

NORWAY

OLEFIN FIBER

A/S PLATON, AVD. TEKSTIL Notodden *Filmtex* (E & P film)

NORFIL-NORPACK A/S Stavern, near Larvik *Akvaflex* (P yarn, E & P monofil & film)

STAL OG TAU Tonsberg *Norseflex* (P film)

GLASS FIBER

NORSK GLASSFIBER A/S Birkeland

PAKISTAN

BENGAL FIBER INDUSTRIES, c/o BENGAL OIL MILLS LIMITED

Nylon 6	Karachi *Nylpak* (yarn)
Polyester	Karachi (yarn & staple)

DILON LIMTED

Nylon 6	Landhi *Dilon* (yarn)
Polyester	(yarn*)

GATRON INDUSTRIES LIMITED

Polyester	Hub Chowki (yarn)

HASHWANI GROUP

Polyester	Sind Province (yarn)

ICI PAKISTAN MANUFACTURERS LTD.

Polyester	Lahore *Tere-Pak* (staple)

NATIONAL FIBERS LIMITED

Polyester	Korangi, Karachi (yarn & staple)

NILOM NYLON MILLS LIMITED

Nylon 6	Lyallpur *Nilom* (yarn & monofil)

PAK FIBRE INDUSTRIES LIMITED

Polyester	Hub Chowki (yarn)

POLYTEX

Polyester	(yarn)

RAVI RAYON LIMITED

Acetate	Kala Shah Kaku, Sheikhupura District, Krasil (yarn)

RUPALI POLYESTER LIMITED

Polyester	Karachi* (yarn & staple)

S.G. RAYON MILLS LIMITED

Polyester	Karachi (yarn)

SYNTHETIC POLYLON

Polyester	Katri (yarn), Hub Chowki (staple)

PERU

BAYER INDUSTRIAL S.A.
Acrylic — Lima *Dralon* (staple)
FILAMENTOS INDUSTRIALES, S.A.
Nylon 6 — Lima* (yarn)
Polyester — Lima (yarn)
MANUFACTURA NYLON S.A.
Nylon 6 — Vitarte, near Lima (yarn)
Polyester — Vitarte *Diolen* (staple)
MANUFACTURAS DEL SUR S.A.
Nylon 6 — Arequipa *Long Life, Mistilon* (yarn)
Polyester — Arequipa (yarn & staple)
RAYON Y CELANESE PERUANA S.A.
Acetate — Lima (yarn)
Nylon — Lima (staple)
Polyester — Lima *Forcel* (yarn, staple, tow & tops)
RETEX PERUANA, S.A.
Nylon 6 — Ventanilla, Callao (yarn)

OLEFIN FILM FIBER, only

NORSAC S.A. Trujillo
POLICEL DEL PERU S.A., Lima
SACOS DEL SUR S.A. Arequipa
SACOS PISCO S.A. Pisco

PHILIPPINES, REPUBLIC OF THE

AMERICAN PHILIPPINE FIBER INDUSTRIES, INC.
Nylon 6 — San Pedro, Laguna *Apfi Nylon* (yarn)
Polyester — San Pedro *Apfi Polyester* (yarn)
FILIPINAS SYNTHETIC FIBER CORPORATION
Polyester — Sta. Rosa, Laguna *Filsyn* (yarn & staple)
LAKEVIEW INDUSTRIAL CORPORATION
Polyester — Carmona, Rizal *Licron* (yarn & staple)
PHILIPPINE POLYAMIDE INDUSTRIAL CORPORATION (PPIC)
Nylon 6 — Calamba, Laguna *Philippine Polyamide* (yarn)
TEXFIBER CORPORATION
Nylon 6 — Taytay, Rizal *Texfiber* (yarn)

OLEFIN FIBER

INDUSTRIAL TEXTILE MANUFACTURING CO. (ITEMCOP) Mandaluyong, Rizal (P film)
MANILA CORDAGE COMPANY Manila (P film)

POLAND

CHODAKOWSKIE ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX"
Rayon — Sochaczew (reg yarn)
WROCŁAWSKIE ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX"
Rayon — Wrocław (reg yarn)
ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-ANILANA"
Acrylic — *Łódź Aniłana* (staple)
Azlon — *Łódź Wipolan* (staple, casein base)
ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-CELWISKOZA"
Polyester — Jelenia Góra *Elana* (staple)
Rayon — Jelenia Góra (staple)
Spandex — Jelenia Góra (pilot plant) *Elaston* (yarn)

POLAND (continued)

ZAKŁADY WŁOKIEN CHEMICZNYCH "ELANA"
Polyester — Toruń, Bydgoszcz *Torlen* (yarn), *Elana* (staple)
ZAKŁADY WŁOKIEN CHEMICZNYCH "STILON"
Nylon 6 — Gorzów Wielkopolski *Lanastil, Stilon* (yarn), *Polana* (staple)
ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISKORD"●
Rayon — Szczecin-Zydowce (reg yarn)
ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISTOM"
Rayon — Tomaszów Mazowiecki, Łódź (ind & reg yarn & staple)

OLEFIN FIBER

ZAKŁADY PRZEMYSŁU LNIARSKIEGO LENKO Bielsko-Biała (P film)
ZAKŁADY PRZEMYSŁU LNIARSKIEGO SKARBKOW Misrk, Wroclaw (P staple)
ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISKORD" Szczecin-Zydowce (P staple)

GLASS FIBER

KROSNIENSKIE HUTY SZKLA Krosno
ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-ANILANA" *Łódź Polsilon*

PORTUGAL

COMPANHIA INDUSTRIAL DE FIBRAS ARTIFICIAS (CIFA), S.A.R.L.
Nylon 6 — Sobrado, Valongo *Cifalon* (yarn)
Rayon — Sobrado (reg yarn & staple)
FIBRAS SINTÉTICAS DE PORTUGAL, S.A.R.L. (FISIPE)
Acrylic — Lisbon *Vonnel* (staple, tow & tops)
FINICISA - FIBRAS SINTÉTICAS, S.A.R.L.
Polyester — Portalegre, Alto Alentejo *Terylene* (staple)
TEXTIL ARTIFICIAL DO PORTO, LDA.
Rayon — Porto (reg yarn)

OLEFIN FIBER

ALICATIFAS DA LOUSA (P staple)
FERCOL (P staple)
LUSOTUFO (P staple)
QUIMIGAL - QUIMICA DE PORTUGAL, E.P. Barreiro (P staple & film)

OLEFIN FILM FIBER, only

CERFIL Maia - Douro
CORDEX - COMPANHIA INDUSTRIAL TEXTIL, S.A.R.L. Esmoriz
COTESI - COMPANHIA DE TEXTEIS SINTETICOS S.A.R.L. Carvalhos
EUROFIL - INDUSTRIAS DE PETROLEOS PLASTICOS E FILAMENTOS, S.A.R.L. Lisbon
FÁBRICA DE TAPETES VITÓRIA Mira d'Aire
FERNANDES & COSTA, LDA. Seia
MANUEL RODRIGUES DE LIMA & FILHOS Cortegaca
MANUEL RODRIGUES D'OLIVEIRA, S.A. LDA. M. Maia
QUINTAS & QUINTAS Povoa de Varzim
SICOR - SOCIEDADE INDUSTRIAL DE CORDOARIA S.A.R.L. Cortegaca

GLASS FIBER

QUIMIGAL - QUIMICA DE PORTUGAL, E.P. ● Barreiro

ROMANIA

COMBINATUL DE FIBRE ARTIFICIALE
Rayon — Braila, Dej* & Suceava* (ind yarn & staple)
Polyester — Vaslui (yarn)

FABRICA DE FIBRE ARTIFICIALE "VISCOFIL"
Rayon — Popesti-Leordeni, near Bucuresti (reg yarn)

FABRICA DE FIBRE ARTIFICIALE "VISCOZA"
Rayon — Lupeni (reg yarn)

UZINA DE FIBRE SINTETICE IASI
Polyester — Iasi *Teron* (yarn, staple, tow & tops)

UZINA DE FIBRE SINTETICE SAVINESTI
Acrylic — Savinesti, near Piatra Neamt (Bacau Region) *Melana* (staple & tops)
Nylon 6 — Savinesti *Relon* (yarn & staple)

SOUTH AFRICA, REPUBLIC OF

CONSOLIDATED TEXTILE MILLS (part of Frame Group of Companies)
Polyester — Jacobs, Natal (yarn & staple - captive)

HOECHST SOUTH AFRICA (PTY.) LTD.
Polyester — Milnerton, Cape Province *Trevira* (staple)

KAYMAC INDUSTRIES
Polyester — Atlantis Cape *Bidim* (spunbonded)

SOUTH AFRICAN NYLON SPINNERS (PTY.) LIMITED
Nylon 66 — Bellville, Cape Province *Bri-Nylon* (yarn)
Polyester — Bellville & Hammarsdale, Natal *Terylene* (yarn)

OLEFIN FIBER

ROMATEX MILLS Jacobs, Natal (P film)

SPAIN

BRILEN S.A.
Polyester — Barbastro, Huesca & Igualada, Barcelona (yarn & staple)

COURTAULDS FIBRES S.A.
Acrylic — Prat de Llobregat, Barcelona *Crilenka* (staple & tow)

DE FIBRE S.A.
Nylon 66 — Vendrell, Tarragona

INDUSTRIAS DEL ACETATO DE CELULOSA, S.A. (INACSA)
Acetate — La Batlloria, Barcelona (yarn)

INDUSTRIAS QUIMICAS TEXTILES S.A. (INQUITEX)
Nylon 6 — Andoain, Guipuzcoa *Carbyl, Nylhair, Trinyl* (yarn & staple)

LA SEDA DE BARCELONA, S.A.
Nylon 6 — Alcalá de Henares, Madrid *Dayan, Enkalon* (yarn & staple)
Polyester — Prat de Llobregat, Barcelona *Terlenka* (yarn & staple)
Rayon — Prat de Llobregat (reg yarn)

MONTEFIBRE HISPANIA S.A.
Acrylic — Miranda de Ebro, Burgos *Leacril* (staple)

NUREL S.A.
Nylon 6 — Zaragoza, Zaragoza *Nurel* (yarn)
Polyester — Zaragoza *Terylene* (yarn & staple)

SOCIEDAD ANONIMA DE FIBRAS ARTIFICIALES (SAFA)
Nylon 66 — Blanes & San Julian de Ramis, Gerona *SAFA* (yarn & staple)
Polyester — Blanes *Tergal, Teriber* (yarn & staple)

SOCIEDAD NACIONAL DE INDUSTRIAS APLICACIONES CELULOSA ESPANOLA, S.A. (SNIACE)
Nylon 6 — Torrelavega, Santander *Lilion* (yarn & staple)
Rayon — Torrelavega (staple)

SPAIN (continued)

OLEFIN FIBER

PAULAR, S.A. - EMPRESA PARA LA INDUSTRIA QUIMICA
Puertollano, C.R. *Istrakin* (P monofil & film)

PROFILEX (P staple)

PROPILAN (P staple)

SERINA TEXTIL (P staple)

SOCIEDAD ANONIMA ITALO ESPAÑOLA (SAITES) Sabadell, Barcelona (P staple & film)

TEXTIL ARMENGOL Bruch, Barcelona (P staple & film)

OLEFIN FILM FIBER, only

CONDEROLS S.A. Granada

CORDELERIAS BARAS S.A. Gijon, Asturias

CORDELERIAS MAR S.A. Vigo, Pontevedra

HILATURAS Y CORDELERIA S.A.-"HILCOSA" Barcelona

HIRESA Callosa de Segura, Alicante

YUTE INDUSTRIAL S.A. Valéncia

GLASS FIBER

FIBRAS MINERALES, S.A. Alcalá De Henares, Madrid *Vitrotex*

SRI LANKA

CEYLON PETROCHEMICAL CORPORATION
Nylon 6 — Sapugaskan (yarn & monofil)

SWEDEN

SONESSON PLAST AB●
Nylon 6/66 — Malmö (monofil)

SVENSKA RAYON AKTIEBOLAGET
Rayon — Älvenäs, Valberg (reg yarn & staple)

OLEFIN FIBER

SONESSON PLAST AB Malmö *Laveten* (E & P monofil)

GLASS FIBER

SCANDINAVIAN GLASFIBER AKTIEBOLAG Falkenberg

SWITZERLAND

EMS INDUSTRIES, LTD.
Nylon 6 — Ems, Graubünden *Grilon* (staple)
Polyester — Domat/Ems *Grilene* (staple)

NOYFIL S.A.
Nylon 6 — Stabio (yarn)
Polyester — Ems (yarn)

VISCOSUISSE AG
Nylon 6/66 — Emmenbruecke, Luzern & Widnau, St. Gallen *Nylsuisse, Flixor* (yarn & staple)
Polyester — Widnau *Tersuisse* (yarn)

OLEFIN FILM FIBER, only

AROVA SCHAFFHAUSEN A.G. Schaffhausen

VOGT & CO. Reinach

TAIWAN

CENTURY EVERGREEN CORP.
Polyester — Tainan *Centuron* (yarn)
CHENTA CHEMICAL INDUSTRIAL CORPORATION
Nylon 6 — Kaohsiung *Rabbit* (yarn)
CHINA MAN-MADE FIBER CORPORATION
Rayon — Tou Fen *Queen* (reg yarn & staple)
CHUNG SHING TEXTILE CO., LTD.
Nylon 6 — Tao Yuan *Tasinlon, Three Gun* (yarn)
Polyester — Tao Yuan *Tasinlon* (yarn & staple)
FAR EASTERN LTD.
Polyester — Hsin Chu *Eastlene, Eastlon* (yarn & staple)
FORMOSA CHEMICALS & FIBER CORPORATION (part of Formosa Plastics Group)
Nylon 6 — Chang Hwa *Sunylon* (yarn)
Rayon — Chang Hwa *Tarsiyon* (reg yarn & staple)
PACIFIC ENTERPRISES LTD.
Nylon 6 — Tao Uyan *P.E.L.* (yarn)
Polyester — Tao Yuan (yarn)
SAN YUAN HSING ENTERPRISE COMPANY
Nylon 6 — Kaosiung (monofil-captive)
SHINKONG SYNTHETIC FIBERS CORPORATION
Polyester — Tao Yuan *Shinlon* (yarn & staple)
SYNTHETIC FIBER MILLS CORPORATION
Nylon 6 — Tao Yuan *Synlon* (yarn)
TA MING FIBERS INDUSTRIAL CORPORATION
Nylon 6 — Tao Yuan *Ta Ming Nylon* (yarn)
Polyester — Tao Yuan *Poylon* (yarn)
TAINAN SPINNING CO., LTD.
Polyester — Tainan *Nanlon* (yarn & staple)
TONG HWA SYNTHETIC FIBER CO., LTD.
Acrylic — Chu Pei *Townflower* (staple & tow)
TUNG HO SPINNING WEAVING & DYEING CO., LTD.
Polyester — Tainan *Pearlylene* (staple)
TUNTEX DISTINCT CORP.
Polyester — Hsin Su *Tuntex* (yarn)
UNITED SYNTHETIC FIBERS CORPORATION
Polyester — Tao Yuan *King Long* (staple)
VANLON FIBERS INDUSTRIAL CORPORATION
Nylon 6 — Tao Yuan *Vanlon* (yarn)
Polyester — Tao Yuan *Vanlon* (yarn)
YU HO FIBER INDUSTRIAL CORPORATION
Polyester — Tao Yuan *Luxlen* (yarn)
YUNG CHIN FIBER CO. LTD.
Nylon 6 — Kaohsiung *Hailon* (yarn)

OLEFIN FIBER

CHIA YANG INDUSTRIAL CO., LTD. Hsi-Chih (P monofil)
CHIEN SUN PLASTIC INDUSTRIAL CO., LTD. Hsin-Chu (E & P film)
CHINA FOLEX CORPORATION Shih-Lin (E & P monofil)
CHUNG KUANG PLASTIC CO., LTD. Chang-Hua (E & P film)
FULLMARK INDUSTRIAL CO., LTD. Hsin-Chu (E & P monofil)
FUU WON CHEMICAL INDUSTRIAL CO., LTD. Tu-Chen (P yarn)
HSIEH CHIN FISHING NET COMPANY, LTD. Kaohsiung *Hsieh Chin* (E monofil - captive)
HUNG FENG ENTERPRISE CO., LTD. Yang-Mei (P monofil)
IEN YI FIBER INDUSTRIAL CO., LTD. Chi-Do Goble (E monofil)
JUI I CHEMICAL INDUSTRIAL CO., LTD. Tou-Yuan (E & P monofil)
KUO HSIANG ENTERPRISE CO., LTD. Yang-Mei (E & P monofil)

TAIWAN (continued)

LIEN FU CHEMICAL COMPANY LTD. Tou-Fen (E & P monofil)
MEI LON FIBER CO., LTD. Chang-Hua (E monofil)
PAO TSUNG TAI INDUSTRIAL CO., LTD. Tainan (P film)
POLON FIBER INDUSTRIAL CO., LTD. Chung-Li (P monofil)
SAN YANG INDUSTRIAL COMPANY LTD. Nei Hu Hsiang (P film)
TAI YEE CHEMICAL INDUSTRIAL CO., LTD. Chung-Li (E & P monofil)
UNITED FIBER INDUSTRIAL CO., LTD. Chung-Li (E & P monofil)
YAO CHENG PLASTIC CO., LTD. Pan-Chaio (P yarn)

TANZANIA

SUN FLAG TEXTILE KNITWEAR MILLS LTD.
Polyester — Arusha (yarn)

THAILAND

ASIA FIBER CO., LTD.
Nylon 6 — Samut Prakarn *AFC* (yarn)
HANTEX CORPORATION LTD.
Nylon 6 — Mahacha, Samut Sakorn (yarn)
ORIENTAL FIBRE
Polyester — Samut Sakorn (yarn)
TEIJIN POLYESTER (THAILAND) LTD.
Polyester — Pathumthani, Bangkok *TEIJIN TETORON* (yarn & staple)
THAI MELON POLYESTER CO., LTD.
Polyester — Pathumthani, Bangkok (yarn & staple)
THAI RAYON CO., LTD.
Rayon — Ang Thong (staple)
TORAY NYLON THAI COMPANY
Nylon 6 — Bangkhen, Bangkok *TNT* (yarn & staple)
Polyester — Bangkhen *TNT* (yarn)

TURKEY

AKRILIK KIMYA SANAYII A.S. (AKSA)
Acrylic — Yalova *Aksa* (staple)
FILAMENT SENTETIK IPLIK VE ELYAF SANAYII A.S.
Polyester — Bursa *Filament* (yarn & staple)
GEMLIK SUNI IPEK VE VISKOZ MAMULLERI SANAYII MUESSESESI (GEMLIK ARTIFICIAL SILK & VISCOSE PRODUCTS INDUSTRY) (Operated by The Sumerbank)
Rayon — Gemlik (staple)
INSA ISTANBUL NAYLON SANAYII A.S.
Nylon 6 — Istanbul *Islon* (yarn)
Polyester — Istanbul (yarn)
M.N. SABUNCU
Polyester — Adana *MNS* (yarn) (idle)
NERGIS A.S.
Polyester — Bursa (yarn)
POLYLEN SENTETIK IPLIK SANAYII A.S.
Polyester — Bursa *Polylene* (yarn)
SANCAK TÜL SANAYII LTD., STI.
Polyester — Istanbul *Lalelen* (yarn) (idle)
SASA SUNI VE SENTETIK ELYAF SANAYII A.S.
Polyester — Adana *Perilon* (yarn & staple)

TURKEY (continued)

SENTETIK IPLIK FABRIKALARI, A.S. (SIFAS)
(SYNTHETIC YARN FACTORIES CORPORATION)

Nylon 6	Bursa *SIFAS* (yarn & staple)
Nylon 66	Bursa (yarn)
Polyester	Bursa (yarn & staple)

SISAS

Polyester	Canakkale* (yarn)

TEKSTIPLIK SANAYII VE TICARET A.S.

Nylon 6	Edime *Dimlon* (yarn)

YALOVA ELYAF VE IPLIK SANAYII VE TICARET A.S.

Acrylic	Yalova *Yalova* (staple & tow)
Modacrylic	Yalova *Yalova* (staple & tow)

OLEFIN FIBER

BEZCI ELYAF SANAYII A.S. Istanbul

DINARSU ELYAF SANAYII A.S. Cerkezkoy, Tekirdag (P staple)

ELSAN ELYAF SANAYII VE TICARET A.S. Istanbul (P staple)

HALICIOGLU ELYAF SANAYII A.S. Haskoy, Istanbul (P staple)

SESAS ELYAF SANAYII A.S. Istanbul

GLASS FIBER

CAM ELYAF SANAYII A.S. Cayirova-Gebze (Izmit)

UNION OF SOVIET SOCIALIST REPUBLICS

RAYON PLANTS, reported at: Balakovo, Barnaul, Cherkassy (Ukraine), Kalinin, Kamensk, Kiev, Klin, Krasnoyarsk, Leningrad, Mogilev, Ryazan, Saratov, Sokol, Sverdlovsk and Svetlogorsk.

ACETATE PLANTS reported at: Engels, Fergana, Kaunas, Kirovakan and Moscow.

NYLON PLANTS reported at: Barnaul, Chernigov, Daughavpils, Engels, Grodno, Kemerovo, Kiev, Klin, Kursk, Leningrad, Rustavi, Shchekino and Zhitomer.

NONCELLULOSIC FIBER PLANTS reported at: Kursk (polyester), Blagoveshchensk (polyester*), Kustanay (vinyon), Minsk (polyester), Mogilev (polyester), Navoi, Polotsk and Saratov (acrylic modacrylic).

GLASS FIBER PLANTS reported at: Astrakhan, Kalinin, Khabarovsk, Leningrad, Mingechaur, Moscow, Polotsk, Salavat, Saratov, Sevan and Severodonetsk.

UNITED KINGDOM

ANGLIA FIBRES PLC●

Polyester	Hadleigh, Suffolk (monofil)
Polyvinylfluoride	Hadleigh *Kynar* (monofil)
Saran	Hadleigh *Saran* (monofil)

COURTAULDS FIBRES LTD.

Acrylic	Grimsby, Lincolnshire *Courtelle* (staple & tow)
Modacrylic	Coventry, West Midlands *Teklan* (staple & tow)
Rayon	Grimsby & Holywell, Clwyd, Wales (staple & tow)
Acetate	Coventry; Spondon, Derbyshire; & Wrexham, Clwyd, Wales *Dicel* (yarn, staple & tow)
Triacetate	Coventry & Spondon *Tricel* (yarn & staple)

DEAN DOVE LTD.

Polyester	Stanley, Durham (yarn)

DU PONT (U.K.) PLC

Spandex	Maydown, Londonderry, N. Ireland *Lycra* (fused multifil)

HOECHST FIBRE INDUSTRIES UK PLC

Polyester	Limavady, Londonderry, N. Ireland *Trevira* (yarn & monofil)

ICI FIBRES (a division of Imperial Chemical Industries PLC)

Biconstituent	Pontypool, Gwent, Wales; Workington, Cumbria; *Cambrelle, Floratex, Terram* (melded fabrics)
Nylon 66	Doncaster, Yorkshire; Gloucester, Gloucestershire; & Pontypool *Bri-Nylon, Buclon, Counterstat, Limbaki, Tactel, Pavanne, Tendrelle, Timbrelle* Superloft, (yarn, staple & tow)
Polyester	Pontypool & Wilton, Yorkshire, *Limbaki, Mitrelle, Superluft, Terinda, Terylene* (yarn, staple & tow)

UNITED KINGDOM (continued)

NYMOFIL PLC

Nylon 6/66	Poulton-le-Fylde, Lancashire (monofil)
Polyester	Poulton-le-Fylde (monofil)

PERI-LUSTA PLC

Nylon 6/66	Leek, Staffordshire (monofil)

OLEFIN FIBER

AMOCO FABRICS, DIVISION OF AMOCO (U.K.) PLC Consett, Durham (P film)

ANGLIA FIBRES PLC Hadleigh, Suffolk *TPX* (E & P monofil)

BELFAST ROPEWORK CO. PLC Belfast, N. Ireland *Bluebell* (E & P monofil, P yarn, staple & film)

CROMPTON AND BROTHERS (P staple)

DON FIBRES PLC Forfar, Angus, Scotland (P yarn, monofil, staple & film)

F. DRAKE (FIBRES) PLC Colcar, Huddersfield, Yorkshire *Gymlene* (P staple)

FILTRONA TEXTILE PRODUCTS PLC Dundee, Angus, Scotland *Filtrona* (P film); *Filtrona Fibre* (P staple)

FLEMMING'S ROPE & TWINES (WOOLSTON) PLC Warrington, Lancashire (P monofil)

GREENVILLE CARPETS PLC Belfast, N. Ireland (P yarn)

HALL'S BARTON ROPERY CO. PLC Hull, Yorkshire (P film and E & P monofil)

THE HAWKINS AND TIPSON GROUP Hailsham, East Sussex (P staple & film)

McCLEERY L'AMIE GROUP PLC Belfast, N. Ireland (P yarn)

NORTHERN IRELAND CARPETS PLC Belfast, N. Ireland (P staple)

PLASTICISERS PLC Drighlington, Yorkshire, *Drylene* (E monofil); *Charisma, Duron, Fibrite, Tritor* (P yarn, monofil, film & staple)

POLYOLEFIN FIBRES & ENGINEERING PLC Bradford, Yorkshire *Downspun* (P staple)

OLEFIN FILM FIBER, only

BONAR TEXTILES PLC Dundee, Angus, Scotland

BRIDON FIBRES & PLASTICS PLC Gateshead & Sunderland, Durham & Wallsend, Northumberland *Broplene, Red Star, Viking*

FAIRBAIRN LAWSON PACKAGING PLC Barnsley, Yorkshire

POLYTAPE PLC Dundee, Angus, Scotland, *Propafil, Propatape*

ROKO CONTAINERS Nottingham

ROTHES PLASTICS PLC Glenrothes, Fife, Scotland

SMITH & NEPHEW POLYFABRIK PLC Newhey, near Rochdale, Lancashire *Polyweave*

SYNTHETIC FABRICS (SCOTLAND) PLC Forfar, Angus

SYNTHETIC INDUSTRIES (IRELAND) PLC Newry, Down, N. Ireland

TALBOT WEAVING CO. PLC Chorley, Lancashire

TAY TEXTILES Dundee, Angus, Scotland

GLASS FIBER

FIBREGLASS PLC (Subsidiary of Pilkington Brothers PLC) Wrexham, Clwyd, Wales *Fiberglass*

TBA INDUSTRIAL PRODUCTS PLC Camberley, Surrey & Hindley Green, Lancashire

FIBREGLASS-REGINA, a joint venture of FIBREGLASS PLC and the BBA GROUP PLC, is producing textile glass tissue (voile) at Liversedge and St. Helens, Merseyside.

UNITED STATES OF AMERICA

ALBANY INTERNATIONAL - MONOFILAMENT PLANT●

Fluoro	Homer, NY *Halar, Kynar, Teflon, Tefzel* (monofil)
Nylon 6, 66 & 612	Homer (monofil)
Polyester	Homer (monofil - regular & hydrolysis-resistant)

ALLIED CORPORATION, FIBERS DIVISION

Nylon 6	Columbia, SC & Hopewell, VA *A.C.E., Anso, Anso-Tex, Caprolan, Nypel* (yarn, monofil & staple)
Polyester	Moncure, NC *A.C.E.* (yarn & monofil)

AMERICAN CYANAMID COMPANY, FIBERS DIVISION

Acrylic	Milton, FL *Creslan* (staple & tow)

AMERICAN ENKA COMPANY, A PART OF AKZONA, INC.

Nylon 6	Enka, NC, Central, SC & Lowland, TN *Anti-Cling Crepeset, Enkalon, Enkalure, Enkasheer, Lurelon, Softalon, T.E.N.* (yarn & staple)
Polyester	Lowland, *Crepesoft, Encron, Encron 8, Enka, Golden Glow, Golden Touch, Matte Touch, Ply Loc, Polyextra, Shanton, Silky Touch, Ultra Touch* (yarn & staple)
Rayon	Lowland, *Absorbit, Enkaire, Enkrome, Fiber 700, IT* (staple)

AMERICAN HOECHST CORPORATION, HOECHST FIBERS INDUSTRIES DIVISION

Polyester	Spartanburg, SC *Trevira* (yarn, monofil, staple & spunbond)
PVC	Delaware City, DE (film)

AMETEK INC., SPECIAL FILAMENTS DIVISION●

Nylon 6, 66 612 & 11	Odenton, MD (monofil)
Polyester	Odenton (monofil)
Saran	Odenton (monofil)

AVTEX FIBERS INC.●

Acetate	Meadville, PA (yarn)
Polyester	Lewistown, PA *Avlin* (yarn)
Rayon	Front Royal, VA (ind yarn & staple)
Vinyon	Meadville (staple)

BADISCHE CORPORATION

Acrylic	Williamsburg, VA *Zefran* (staple)
Nylon 6	Anderson, SC *Zeftron* (yarn & staple)

BERKLEY & CO., INC.●

Nylon 6	Spirit Lake, IA (monofil)

CAMAC CORPORATION●

Nylon 6	Bristol, VA *Camalon* (yarn)

CELANESE FIBER OPERATIONS, A DIVISION OF CELANESE CORPORATION (includes former Fiber Industries plants)

Acetate	Rock Hill, SC (Celriver) & Narrows, VA (Celco) (yarn, staple & tow)
Polyester	Fayetteville, Salisbury & Shelby, NC and Darlington & Greenville, SC *Angelette, Ceylon, Comfort Fiber, ESP, Fortrel, Loftguard, PolarGuard, Serene, Superba* (yarn, staple, tow & fiberfill)
Triacetate	Rock Hill *Arnel* (yarn, staple & tow)
PBI	Rock Hill (staple)

CORTLAND LINE COMPANY

Nylon 6	Cortland, NY (monofil - captive)

COURTAULDS NORTH AMERICA INC.

Nylon 6	Le Moyne, Mobile County, AL *Courtaulds, Shareen* (yarn & monofil)
Rayon	Le Moyne (staple)

U.S.A. (continued)

E.I. DU PONT DE NEMOURS & COMPANY (INC.)● POLYMER PRODUCTS DEPARTMENT

Nylon 6 66,612, & Polyester	Parkersburg, WV *Dacron, Dymetrol, Tynex, Vylor* (monofil of 50 denier & coarser)

TEXTILE FIBERS DEPARTMENT●

Acrylic	Camden, SC & Waynesboro, VA *Orlon* (staple & tow)
Aramid	Richmond, Va *Kevlar* (yarn), *Nomex* (yarn, staple & tow)
Nylon 66	Seaford, DE, Camden, SC, Chattanooga, TN and Martinsville, Richmond & Waynesboro, VA *Antron, Cantrece, Cordura, Du Pont, Hyten* (yarn, monofil, staple & tow)
Polyester	Kinston & Wilmington, NC, Camden & Charleston, SC and Chattanooga & Old Hickory, TN *Dacron, Hollofil* (yarn, staple, tow & fiberfill), *Reemay* (spunbonded), *Sontara* (spunlaced)
Spandex	Waynesboro *Lycra* (fused multifill or coalesced monofil)

EASTMAN KODAK COMPANY TENNESSEE EASTMAN COMPANY

Acetate	Kingsport, TN (yarn)
Polyester	Kingsport, TN, Columbia, SC *Kodel* (yarn & staple)

FIBER INDUSTRIES, INC.- See Celanese Fiber Operations

FIRESTONE FIBERS & TEXTILES COMPANY, DIVISION OF FIRESTONE TIRE & RUBBER COMPANY

Polyester	Hopewell, VA (yarn)

FOSS MANUFACTURING CO., INC.

Polyester	Haverhill, MA (staple)

GLOBE MANUFACTURING CO.

Spandex	Fall River, MA & Gastonia, NC *Cleerspan, DC-100, DC-700, Glospan* (fused multifil)

THE GOODYEAR TIRE & RUBBER COMPANY, CHEMICAL DIVISION

Polyester	Scottsboro, AL & Point Pleasant, WV (yarn - captive)

GUILFORD MILLS, GAINESVILLE DIVISION

Nylon 6	Gainesville, GA (yarn & monofil - captive)

HANOVER MILLS, INCORPORATED (subsidiary of Falk Fibers & Fabrics, Inc.)

Nylon 6	Yanceyville, NC *Hanover* (yarn & monofil)

JOHNSON FILAMENTS, INC. (subsidiary of JWI Ltd.)

Nylon 6/66	Williston, VT (monofil)
Polyester	Williston, (monofil)

KAYSER-ROTH CORPORATION, YARN PROCESSING DIVISION

Nylon 66	Creedmoor, NC (yarn - captive)

MONOFILAMENTS, INC.

Nylon 6/66	Waynesboro, VA (monofil)
Polycarbonate	Waynesboro (monofil)
Polyester	Waynesboro (monofil)

MONSANTO COMPANY MONSANTO FIBERS AND INTERMEDIATES CO.

Acrylic	Decatur, AL *Acrilan, Bi-Loft, Fi-Lana, Fondelle, Pa-Qei, Remember, So-Lara* (staple & tow)
Modacrylic	Decatur *SEF* (staple & tow)
Nylon 66	Pensacola, FL & Greenwood, SC *Ultron* (yarn, monofil & staple), *Cerex* (spunbonded)

U.S.A. (continued)

MONSANTO PLASTICS AND POLYMERS COMPANY
Nylon 66 Pensacola *Astro Turf* (recreational & landscaping surfaces)
NORTH AMERICAN RAYON CORPORATION
Rayon Elizabethton, TN (ind & reg yarn & tow)
OMEGA YARNS, INC. (subsidiary of Tietex Corp.)
Polyester Asheboro, NC (yarn)
SHAKESPEARE COMPANY, MONOFILAMENT DIVISION
Nylon 6/66 Columbia, SC S-3, *Sooflex, Superflex, Wonderthread, Whispertouch,* (monofil)
Polyester Columbia *Shakespeare Wonderthread* (monofil)
STAR FIBERS, INC.
Nylon 6 Edgefield, SC *Starbrite* (staple)
TOLARAM FIBERS, INC.
Polyester Ansonville & Asheboro, NC (yarn)
UNIVERSAL POLYMER PRODUCTS CORPORATION (subsidiary of Falk Fibers & Fabrics, Inc.)
Polyester Fuquay-Varina, NC (yarn & monofil)
WELLMAN, INC., MAN-MADE FIBER DIVISION
Nylon 6 & 66 Johnsonville, SC *Wellon, Wellstrand* (staple, tow, tops & monofil)
Polyester Johnsonville, *Fillwell, Wellane, Wellstrand* (staple, tow & monofil)
YKK ZIPPER CO.
Polyester Macon, GA (yarn)

OLEFIN FIBER

ACS INDUSTRIES, INC. Woonsocket, RI (P yarn & staple)
ALADDIN CARPETS, INC. Dalton, GA (P yarn)
ALBANY INTERNATIONAL - MONOFILAMENT PLANT Homer, NY (P monofil)
AMERICAN MANUFACTURING COMPANY
HONESDALE ROPE DIVISION Honesdale, PA (E & P monofil & film)
LAFAYETTE ROPE DIVISION Lafayette, LA *Amco, American, Bondtie, Floterope* (E & P monofil)
AMERICAN POLYCRAFT Dalton, GA (P film)
AMETEK INC., SPECIAL FILAMENTS DIVISION Odenton, MD (E & P monofil)
AMOCO FABRICS COMPANY, Andalusia & Roanoke, AL, Bainbridge, Hazlehurst & Nashville, GA, Lowell, NC & Afton, VA *Marquesa Lana, Patlon, Patlon Plus* (P yarn, monofil, film & staple)
ARLIN MFG.CO., INC. Lowell, MA (P film)
ARMSTRONG WORLD INDUSTRIES, INC. Charlotte, NC (P film - captive)
AVTEX FIBERS INC. Front Royal, VA (P staple)
BEAULIEU OF AMERICA Dalton, GA (P yarn)
BEMIS COMPANY, INC. St. Louis, MO (P film)
BERKLEY & CO. INC. Spirit Lake, IA (E & P monofil - captive)
BLUE MOUNTAIN EXTRUSIONS Anniston, AL *Gold Medal, Poly Autotwine, Poly Macramé, Polylasting, TY-EZ Polytape, Tylon, Tytite* (E & P film)
BRIDON CORDAGE INC. Albert Lea, MN (P film)
BURLINGTON, INC. Greensboro, NC (P yarn)
CAMAC CORPORATION Bristol, VA (P yarn)
CAVALIER CARPET CO. Dalton, GA (P yarn)
CHASE BAG COMPANY Orange, CA & New Orleans, LA (P film)
CIRTEX Dalton, GA (staple)

U.S.A. (continued)

COLOR TREND, INC. Dalton, GA (P yarn)
COLUMBIAN GROUP - DIVISION OF THE COLUMBIAN ROPE COMPANY Jefferson, LA & Auburn, NY *Manipro, Poly K, Poly Twine, Polypro 6, Radiant Twine* (E & P monofil & film)
CONCORDE FIBERS, INC. Jamestown, SC (P yarn)
CROWE ROPE COMPANY Warren, ME *Crowelon,* (P monofil)
CROWN ZELLERBACH CORPORATION, NONWOVEN FABRICS DIVISION Washougal, WA *Celestra, Fibretex,* (P spunbonded)
CUMBERLAND, INC. Dalton, GA (P yarn)
CUTLASS CARPET CO. Dalton, GA (P yarn)
DIAMOND MILLS, INC. Dalton, GA (P yarn & film)
E.I. DU PONT DE NEMOURS & COMPANY (INC.), TEXTILE FIBERS DEPT. Old Hickory, TN & Richmond, VA *Typar,* (P spunbonded); *Tyvek* (E spunbonded)
ELIZABETH WEBBING MILLS CO., INC. Central Falls, RI (P film)
ENSIGN-BICKFORD INDUSTRIES, INC., FILM FIBERS DIVISION Simsbury, CT (P film)
EXXON CHEMICAL AMERICAS, INDUSTRIAL TEXTILES DIVISION Kingman, KS & Summerville, SC (P monofil & film)
FIBERS & FABRICS OF GEORGIA, INC. (subsidiary of Georgia Synthetics, Inc.) Elberton, GA (E & P yarn, monofil & multifil)
FIBRES SOUTH, INC. Trussville, AL *Polystar, Trustite, Tyrite,* (P film, monofil & staple)
FIBRON CORPORATION OF TENNESSEE (subsidiary of Harbour Group Ltd.,)Chattanooga, TN *Fibri-Cord, Fibri-Knit, Fibrilawn, Fibrilon* (P film)
FILAMENT FIBER TECHNOLOGY INCORPORATED Lakewood, NJ (P yarn)
FNT INDUSTRIES INC. Menominee, MI (E monofil)
FOSS MANUFACTURING CO., INC. Haverhill, MA (P staple)
GENERAL FIBERS & FABRICS, INC. LaGrange, GA (P film)
GEORGIA SYNTHETICS, INC. Elberton, GA (E & P yarn, monofil & film)
GLADDING CORP., CORDAGE DIVISION South Otselic, NY (P monofil)
HERCULES INCORPORATED, HERCULES ENGINEERED & FABRICATED PRODUCTS COMPANY, FIBERS Oxford, GA *Herculon* (P yarn & staple)
THE HOOVEN & ALLISON COMPANY Xenia, OH (P film)
INTEGRATED PRODUCTS, INC. Rome, GA (P staple)
J & J INDUSTRIES Dalton, GA (P yarn)
KELLER INDUSTRIES, INC. Swainsboro, GA (P monofil - captive)
KIMBERLY-CLARK CORPORATION Corinth, MS. Balfour, NC & Neenah, WI *Accord, Duraguard, Evolution* (P spunbonded); *Cyclean* (P spunbonded/meltblown laminate); *Evolution II, Safeguard CPF* (P spunbonded meltblown & P meltblown)
LAMBETH CORPORATION New Bedford, MA *Lambeth* (E & P monofil)
LAWRENCE HOSE COMPANY **(A Consolidated Foods Company)** Burlington, NC (E monofil - captive)
LORETEX, DIVISION OF OIVIND LORENTZEN, INC. Guilderland Center, NY (E film - captive)
MIRAFI, INC. (subsidiary of Dominion Textiles) Moultrie, GA (P film - captive)
NSI, INC. Soperton, GA (P film - captive)
THE OSTERNECK COMPANY Lumberton, NC (P film)

U.S.A. (continued)

PHILLIPS FIBERS CORPORATION (subsidiary of Phillips Petroleum Company) Rocky Mount, NC, Seneca & Spartanburg, SC *Marvess* (P yarn, staple & tow)
POLYLOOM CORPORATION OF AMERICA Dayton, TN *Polyloom* (P film)
SARLON INDUSTRIES, INC. Miami, FL (P monofil & film)
SHUFORD MILLS, INC. Hickory, NC (P film)
SOLUTION FIBERS, INC. Dalton, GA (P yarn)
SOUTHERN WEAVING, INC. Greenville, SC (P yarn)
STEVENS LINEN Dalton, GA (staple)
SUNSHINE CORDAGE CORPORATION Miami, FL *Cala-Line, Oletex, Poncar, Sunshine, Sunylon, Sunypool* (E & P monofil)
SYNTHETIC INDUSTRIES Chickamauga, GA, Houston, TX (P film - captive)
TECHNOTRADE Dalton, GA (P yarn)
TUBBS CORDAGE COMPANY Orange, CA *Loktite* (P monofil & film)
TWINE PRODUCTS CORPORATION New Orleans, LA (P film)
UNITED STATES ROPE COMPANY Menlo Park, CA (P monofil)
WALL INDUSTRIES, INC. Elkin, NC (E & P monofil)
WALTRICH PLASTIC CORPORATION Tennent, NJ (P monofil)
WAYN-TEX, INC. Waynesboro, VA *Beamette, Waynfil* (E & P yarn & monofil & P film)
WELLINGTON PURITAN MILLS (MONTAIR DIV.) Pilot Mountain, NC *Pur-Ty, Welltite* (E & P monofil & film)
WELLINGTON SYNTHETIC FIBRES, INC. Leesville & Summerville, SC (P yarn and monofil)

TEXTILE PRODUCTS FROM OLEFIN

CONWED CORP. *Conwed Plastic Netting* (P embossed film for netting)
E.I. DU PONT DE NEMOURS & COMPANY (INC.) (E & P embossed film for netting)
HERCULES INCORPORATED, POLYMERS DIVISON *Delnet* (E embossed film for netting)
NALLE, INC. (P embossed film for netting)
RIEGEL PRODUCTS CORPORATION *Polyweb* (P meltblown)
THE 3M COMPANY (P spunbonded)

GLASS FIBER

CERTAINTEED CORPORATION
FIBER GLASS REINFORCEMENTS DIVISION Wichita Falls, TX *RO99, Satin Glass, Stichmat, Unifilo* (roving, woven roving, mat, chopped strand & combination product)
F.G.I. FIBERS, INC. Amsterdam NY (roving & chopped)
GAF, BUILDING MATERIALS DIVISION Irwindale, CA (chopped), Nashville, TN (chopped)
LUNDY TECHNICAL CENTER Pompano Beach, FL *RoMHOglas* (metallized glass fiber roving, strand & mat)
MANVILLE CORPORATION Waterville, OH & Etowah, TN *Chop-Pak* (chopped strand, mat & sliver)
NICOFIBERS INC. Shawnee, OH *Conformat, Consurmat, Surmat* (mat)
OMNI FIBER GLASS CORPORATION, DIVISION OF KOPPERS COMPANY, Chino, CA (roving, chopped & milled)
OWENS-CORNING FIBERGLAS CORPORATION Huntingdon, PA, Aiken & Anderson, SC, Jackson, TN & Amarillo, TX *Araton, Beta, Bi-Ply, Fiberglas, S-Glass, S-2 Glass* (yarn, roving, woven roving, mat, chopped & milled)
PPG INDUSTRIES, INC., FIBER GLASS Lexington & Shelby, NC *Azdel,* (yarn, roving, mat, chopped strand, woven roving & rubber reinforcement)
SUPERIOR GLASS FIBERS, INC. Bremen, OH (mat)

URUGUAY

HILADOS SINTETICOS S.A.(HISISA)
Nylon 66 — Estacion Manga, Montevideo *Hisilon* (yarn)
POLIMEROS URUGUAYOS S.A.
Polyester — San José, San José (staple)
SINTETICOS SLOWAK S.A.
Nylon 6 — Montevideo *Crofil* (yarn & monofil)
Nylon 66 — Montevideo *Hisilon* (yarn)
Polyester — Montevideo *Terpol* (yarn)
SUDAMTEX del URUGUAY S.A.
Acetate — Colonia (yarn)

OLEFIN FIBER (continued)

ARYN S.A. Montevideo (E monofil)
CINCA S.A. Montevideo (E film)
ELABORADORA DE ARPILLERA SINTETICA S.A. (E film)
UDINE S.A. (E monofil)

VENEZUELA

C.A. INVERSIONES ARAGUA
Nylon 6 — Maracay *Sudalon* (yarn)
GOMELAST, C.A.
Spandex — Caracas *Spandaven* (yarn)
HILADOS FLEXILON
Nylon 6 — Caracas (yarn)
Polyester — Caracas (yarn)
MANTEX, C.A.
Acetate — Valencia (yarn)
Polyester — Maracay, Valencia *Fortrel* (yarn & staple)
SUDAMTEX DE VENEZUELA, C.A.
Polyester — Maracay (yarn & staple)

YUGOSLAVIA

HEMTEKS
Polyester — Skopje, Macedonia *Meklen* (yarn & staple)
INCEL FABRIKA CELULOZE I VISKOZE
Polyester — Banja Luka, Bosna i Hercegovina *Belira* (yarn)
Rayon — Banja Luka (staple)
INDUSTRIJA SINTETICKIK VLAKANA (PROGRES)
Nylon 6 — Prizren, Kosovo Mitohijan *Supralon* (yarn)
Polyester — Istok, Kosovo Mitohijan & Prizren *Prizrenit* (yarn)
KEMICNA TOVARNA MOSTE
Nylon 6 — Ljubljana, Slovenia *Yulon* (yarn)
ORGANSKO HEMIJSKA INDUSTRIJA SKOPJE (OHIS)
Acrylic — Skopje, Macedonia *Makrolan, Malon* (staple)
TEKSTILNA INDUSTRIYA "ZELE VELJKOVIC"
Nylon 6 — Leskovac* (yarn & staple)
VARAZDINSKI TEKSTILNI KOMBINAT (VARTEKS)
Polyester — Varazdin (staple)
VISKOZA
Rayon — Loznica, Serbia (ind & reg yarn & staple)

OLEFIN FIBER

HEMIJASKA INDUSTRIJA U OSNIVANJU Belgrade (P staple)

GLASS FIBER

GOSTIVAR STAKLARA
Staklara (roving & mat)

WORLD MAN-MADE FIBER PRODUCER AFFILIATIONS & PERCENTAGE OF CAPITAL OWNERSHIP

Licensing and royalty agreements are not taken into account. The ownership of companies other than man-made fiber producers is not listed, e.g., weaving mills, chemical producers, etc.

For each country, the percentage following the first-named producer is the portion owned by the captioned company; the remainder of the entry shows other ownership. For example, Akzo N.V. owns 40% of Fibras Quimicas and Alfa-group owns 60%.

AKZO N.V. (NETHERLANDS)

Brazil	Companhia Bahiana de Fibras 45%; others 55%; Polyenka 51%; others 49%
Colombia	Enka de Colombia 48%; others 52%
Ecuador	Enkador 48%; others 52%
Germany	Enka 97%; public 3%
India	Century Enka 39%; others 61%
Mexico	Fibras Quimicas 40%; Alfa-group 60%
Netherlands	Enka 100% Silenka 33.33%; PPG Industries 33.33%; others 33.33%
Spain	La Seda 57%; others 43%
U.S.A.	American Enka 100%

AMERICAN CYANAMID COMPANY (U.S.A.)

U.S.A.	Fibers Division 100%

AMOCO CHEMICALS CORPORATION (U.S.A.)

Australia	Amoco Fabrics Co., Patchogue Plymouth Div. 100%
Canada	Amoco Fabrics Co. 100%
Germany, F.R.	Amoco Fabrics Co., Patchogue Plymouth Div. 100%
U.K.	Amoco Fabrics 100%
U.S.A.	Amoco Fabrics Co., Patchogue Plymouth Div. 100%

BASF AMERICA CORPORATION (U.S.A.)

BASF America owns 100% of Badische Corp. (U.S.A.), which in turn owns 100% of Badische Canada Limited.

ASAHI CHEMICAL INDUSTRY CO. LTD. (JAPAN)

India	Baroda Rayon Corp. 1%; local interests 89%; others 10%
Indonesia	P.T. Indonesia Asahi Chemical 51%; others 19%; local interests 30%
Ireland	Asahi Synthetic Fibres (Ireland) 85%; others 15%
Japan	Asahi Chemical 100%
Korea, Rep.	Tong Yang Polyester 50%; Tong Yang Nylon 50%

BAYER A.G. (WEST GERMANY)

Belgium	N.V. Bayer 100%
Germany, F.R.	Bayer A.G. 100% Faserwerke Lingen G.m.b.H. 100%
Iran	Sherkat Sahami Aliaf 50%
Peru	Bayer Industrial S.A. 60%

CELANESE CORPORATION (U.S.A.)

Belgium	Celanese S.A. 100%
Brazil	Celanese do Brasil 100% Celanese do Brasil Nordeste 100%
Canada	Celanese Canada Inc. 56%
Mexico	Celanese Mexicana 40%; public 60%
U.S.A.	Celanese Fibers Operations 100%

COURTAULDS, PLC (U.K.)

Canada	Courtaulds (Canada) Inc. 100%
France	Courtaulds S.A. 100%
Italy	Fin Novaceta S.p.A. 50%; SNIA 50%
Spain	INACSA 12%; public 88%
U.K.	Courtaulds Fibres S.A. 84%; other 16% Courtaulds Fibres Ltd., 100%
U.S.A.	Courtaulds North America Inc. 100%

E.I. DU PONT DE NEMOURS & COMPANY (U.S.A)

Argentina	Ducilo 83%; Bunge & Born 17%
Brazil	Du Pont do Brasil 100%
Canada	Du Pont Canada 75%; public 25%

E.I. DU PONT DE NEMOURS & COMPANY (U.S.A.) *(Cont'd.)*

Germany, F.R.	Du Pont de Nemours (Deutschland) 100%
Japan	Toyo Products 50%; Toray Industries 50%
Luxembourg	Du Pont Fibres 100%
Mexico	Nylon de Mexico 40%; Alfa-group 51%; public 9%
Netherlands	Du Pont de Nemours (Nederland) 100%
U.K.	Du Pont (U.K.) 100%
U.S.A.	Textile Fibers Department 100% Polymer Products Department 100%

FIRESTONE TIRE & RUBBER COMPANY (U.S.A.)

Canada	Firestone Textiles Co. 100%
U.S.A.	Firestone Fibers & Textiles 100%

HARBOUR GROUP LTD. (U.S.A.)

U.K.	Synthetic Industries (Ireland) PLC 100%
U.S.A.	Fibron Corp. of Tennessee 100% Synthetic Industries, Inc. 100% Synthetic Industries (Texas), Inc. 100%

HERCULES INCORPORATED (U.S.A.)

Italy	HIMONT Fibers 50%; Montedison 50%
U.S.A.	Hercules 100%

HOECHST A.G. (WEST GERMANY)

Austria	Austria Faserwerke: Hoechst Austria 51%; Lenzing 49%
Brazil	Cia. Brasileira de Sintéticos 100%
Germany, F.R.	Hoechst 100% Zehlendorf 91%; Others 9%
South Africa	Hoechst South Africa 100%
U.K.	Hoechst Fibre Industries 100%
U.S.A.	American Hoechst 100%

KURARAY CO., LTD. (JAPAN)

Indonesia	Kuma Fiber 40%; others 60%
Japan	Kuraray 100%

IMPERIAL CHEMICAL INDUSTRIES LIMITED (U.K.)

ICI owns 62% of ICI Australia Ltd., which in turn owns Fibremakers Ltd. of Australia.

Australia	Fibremakers Ltd. — 100% ICI Australia
Germany, F.R.	ICI Europa Fibres G.m.b.H. 100%
India	Chemicals & Fibres of India Ltd. 55%
Pakistan	ICI Pakistan Manufacturers 70%
Portugal	Finicisa-Fibras 50%; Francisco Fino Ltd. 50%
South Africa	S.A. Nylon Spinners (through AECI Ltd.) 40%
Spain	Nurel S.A. 50%; local interests 50%
U.K.	ICI Fibres 100%

MITSUBISHI RAYON (JAPAN)

Japan	Mitsubishi Acetate 100% Mitsubishi Rayon 100%
Portugal	FISIPE 4%; Mitsubishi Corp. 9%; Quimigal 87%
Taiwan	Tong Hwa 19%; Mitsubishi Corp. 12%; others 69%

MONTEFIBRE S.p.A. (ITALY)

Italy	Società Italiana Poliestere S.p.A. 100%; Società Italiana Prodotti Acrilici S.p.A. 100%; Industrie Tessili Vercelli S.p.A. 100%; Società Industriale Cremonese S.p.A. 50%; others 50%
Spain	Montefibre Hispania S.A. 87%; others 13%
U.K.	Montefibre U.K. Ltd. 100%

OWENS-CORNING FIBERGLAS CORPORATION (U.S.A.)

Belgium	Owens-Corning Fiberglas Europe 100%
Brazil	OCFIBRAS 100%
Canada	Fiberglas Canada 49%; Duplate Canada 49%; local interests 2%
France	Owens-Corning Fiberglas Europe 100%
Japan	Asahi Fiber Glass 28%; Asahi Glass Co. Ltd. 72%
Mexico	Vitro-Fibras 40%; Vitro Group 60%
Norway	Owens-Corning Fiberglas Europe 70%; Elkem-Spigerverket 30%
Sweden	Scandinavian Glasfiber 100%
U.S.A.	Owens-Corning Fiberglas 100%

WORLD MAN-MADE FIBER PRODUCER AFFILIATION & PERCENTAGE OF CAPITAL OWNERSHIP *(Cont'd.)*

PPG INDUSTRIES (U.S.A.)

Netherlands	Silenka 33.33%; Akzo N.V. 33.33%; Nom. 33.33%
U.S.A.	Fiber Glass Division 100%

PILKINGTON BROTHERS (U.K.)

Argentina	VASA 99.7%; Glaverbel Boussois local interests 0.3%
India	Fibreglass Pilkington 50%, plus 1 share; Indian interests 50%, less 1 share
South Africa	Fibreglass South Africa 24.5%; Owens-Corning Fiberglas (U.S.A.) 24.5%; Plate Glass & Shatterprufe Industries Ltd. 51%
U.K.	Fibreglass PLC 100%

RHONE-POULENC S.A. (FRANCE)

Argentina	Rhodia Argentina Qüimica e Texteis 100%
Brazil	Rhodia S.A. 100%; Rhodia Nordeste 99%
France	Rhone-Poulenc-Textile 99.9%; Rhone-Poulenc Fibres 100%; Cellatex 100%; Rhovyl 100%
Germany, F.R.	Rhodia A.G. 100%
Spain	SAFA 60%
Switzerland	Viscosuisse (through Holva AG) 87%

SAINT-GOBAIN (FRANCE)

France	Saint-Gobain Industries 100%
Germany, F.R.	Gevetex-Textilglas 100%
Italy	Vetrotex Italia 100%
Spain	Cristaleria Espanola S.A. 69%; others 31%
U.S.A.	CertainTeed Corp. 55%; others 45%

SNIA FIBRE (ITALY)

France	Ets. Nysam 100%
Italy	Novaceta 50%, Courtaulds (U.K.) 50%

TEIJIN LTD. (JAPAN)

Indonesia	P.T. Tifico 65.8%; Toyo Menka 16½%; local interests 17.7%
Japan	Teijin 100% Teijin Acetate 100%
Korea, Rep.	Sunkyung Fibres 11%; local interests 89%
Taiwan	Hualon-Teijin 6%; local interests 94%
Thailand	Teijin Polyester 45%; local interests 55%

TORAY INDUSTRIES (JAPAN)

Brazil	Polynor is owned 16% by Matoray, which in turn is owned 35% by Toray and 65% by IRF Matarazzo.
Indonesia	P.T. Indonesia Toray Synthetics 59%; others 41%
Japan	Toray Industries 100%; Toray-Monofilament 100%; Toyo Products 50%; Du Pont 50%
Korea, Rep.	Cheil Synthetic Textiles 23.5%; Mitsui 6%; local interests 70.5%; Kolon Industries 19.8%; others 80.2%
Malaysia	Penfibre 90%; Textile Alliance 10%
Philippines	Philippine Polyamide 16.5%; Itoman 12.5%; Toyo Menka 11%; local interests 60%
Taiwan	Shin Kong 6.4%; Mitsubishi Corp. 4.5%; local interests 89.1%
Thailand	Toray Nylon Thai 30%; Mitsui 19%; local interests 51%

TUBBS CORDAGE COMPANY (U.S.A.)

Philippines	Manila Cordage 40%
U.S.A.	Tubbs Cordage 100%

WELLMAN, INC. (U.S.A.)

Ireland	Wellman International Ltd. 45%; Irish Nationals 55%
U.S.A.	Man-Made Fiber Division 100%

CORRECTION

On page 48 of the March 1985 *Organon*, the following changes should be made to read:

Table 13: 1983 Man-Made Fiber Production, Import Export & Net Available Supply by Country (Except Olefin & Textile Glass).

Japan:	Imp	Exp	Avail
Cellulosic Yarn	1.6	121.2	137.9
Cellulosic Staple	0.6	286.2	305.0
Noncellulosic Yarn	45.8	378.9	983.0
Noncellulosic Staple	38.8	547.7	1080.6
Total Man-Made Fibers	86.8	1334.0	2598.3
Cellulosic Spun	+4.6		
Noncellulosic Spun	+87.2		

On page 75 of the April 1985 *Organon:*

Graph 4: U.S. Domestic Output of Apparel Vs. Apparel Imports should read: **Billion Pounds**

OLEFIN DATA PRESENTATION

As has been the practice with past June issues, all world olefin data are presented separately from the other noncellulosic fibers. This method of presentation is necessitated by a lack of complete olefin data worldwide.

Two examples illustrate the problem:

A. Though the U.S. olefin production data published regularly in the *Organon* include yarn, monofil, staple, film fiber and spunbonded polypropylene, published Italian and Japanese olefin data show the production of yarn + monofilaments and staple + tow but no data on production of film fiber, such as is used in sacks, fishing nets and carpet backing.

B. The published man-made fiber data of many other countries show little or not olefin fiber production at all (e.g., France, West Germany and the United Kingdom).

Due to the difficulties given above, the noncellulosic data except olefin are presented on pages 107-110.

The olefin data for most countries appear on page 117. These data consist of (a) the "official" country data published by a government, an association or other statistical agency, and (b) an estimate of the olefin fiber, mainly slit and split film fiber, believed to have been produced in the country. No attempt is made to strike a world total because the incomplete data of a number of countries, particularly in Latin America, Eastern Europe and Africa, Asia and Oceania, prohibit such a tabulation.

TABLE 10: NUMBER OF MAN-MADE FIBER PRODUCING PLANTS (EXCEPT OLEFIN)*

COUNTRY & REGION	CELL.		NONCELLULOSIC					TEXTILE GLASS	GRAND TOTAL
	ACETATE[a]	RAYON	ACRYLIC[b]	NYLON	POLYESTER	OTHER	TOTAL		
WEST EUROPE									
AUSTRIA		2			1	1	2		4
BELGIUM, LUX	1	1		3	1		4	2	8
FINLAND		1		1			1	1	3
FRANCE		2	1	3	1	1	6	2	10
GERMANY, F.R.	1	2	3	11	9	4	27	2	32
GREECE		1	1	2	3		6		7
IRELAND (EIRE)			1	1	2		4		4
ITALY/MALTA	2	3	3	13	7	1	24	2	31
NETHERLANDS		1		2	1		3	1	5
NORWAY								1	1
PORTUGAL		2	1	1	1		3	1	6
SPAIN	1	2	2	6	4		12	1	16
SWEDEN		1		1			1	1	3
SWITZERLAND				3	3		6		6
TURKEY		1	2	4	8		14	1	16
UNITED KINGDOM	2	1	3	3	5	4	15	3	21
TOTAL W. EUROPE	**7**	**19**	**17**	**64**	**46**	**11**	**128**	**18**	**173**
EAST EUROPE									
BULGARIA		1	1	1	1		3		4
CZECHOSLOVAKIA		5		3	2		5	2	12
GERMAN D.R.		8	2	3	2	1	8	1	17
HUNGARY		1	1	1			2		3
POLAND		5	1	1	2	2	6	2	13
ROMANIA		3	-	1	2		4		7
YUGOSLAVIA		2	1	2	4		7	1	10
TOTAL E. EUROPE		**25**	**7**	**12**	**13**	**3**	**35**	**6**	**66**
AMERICAS									
ARGENTINA	1	1	1	6	5	1	13	1	16
BOLIVIA			1				1		1
BRAZIL	1	4	2	18	11	1	32	1	38
CANADA	1	1		3	2	1	6	1	9
CHILE		1		2	3		5		6
COLOMBIA	1			3	5		8		9
COSTA RICA					1		1		1
CUBA		1							1
ECUADOR					3		3		3
GUATEMALA				1			1		1
MEXICO	1	1	4	6	5	2	17	1	20
PERU	1		1	4	4		9		10
U.S.A.	3	4	4	22	20	6	54	11	72
URUGUAY	1			3	2		5		6
VENEZUELA	1			2	3	1	6		7
TOTAL AMERICAS	**11**	**13**	**13**	**70**	**64**	**14**	**161**	**15**	**200**
AFRICA, ASIA & OCEANIA									
AUSTRALIA				2	2	1	5	1	6
BANGLADESH		2		1			1		3
EGYPT		2		1	2		3		5
INDIA	1	12	4	12	20		36	2	51
INDONESIA		4		5	10		15		19
IRAN			1	1	1		3		3
IRAQ		1							1
ISRAEL			1	1	1		3		3
JAPAN	2	12	7	10	11	17	45	10	69
KENYA				1	4		5		5
KOREA, REP. OF	1	1	2	4	9	1	16		18
MALAYSIA					1		1		1
NIGERIA					1		1		1
PAKISTAN	1			3	9		12		13
PHILIPPINES				3	3		6		6
SOUTH AFRICA				1	4		5		5
SRI LANKA				1			1		1
TAIWAN		2	2	13	16		31		33
TANZANIA					1		1		1
THAILAND		1		3	4		7		8
TOTAL A,A & O	**5**	**37**	**17**	**63**	**99**	**19**	**197**	**17**	**273**
WORLD TOTAL*	**23**	**84**	**54**	**198**	**222**	**47**	**521**	**56**	**712**

* Data for People's Republic of China, North Korea & U.S.S.R. are not included here.

a. Acetate includes triacetate.

b. Acrylic includes modacrylic.

c. Nylon includes aramid.

d. Includes 1 azlon, 2 biconstituent, 3 fluorocarbon, 1 PBI, 1 PVC, 1 polycarbonate, 1 polyolefin, 1 polyoxymethylene, 1 polyvinyl fluoride, 1 promix, 7 saran, 17 spandex or elastomer, 4 vinal and 8 unspecified plants for a total of 47 plants producing these miscellaneous fibers.

TABLE 11: FILAMENT YARN DOMESTIC SHIPMENTS*

MILLION POUNDS

ITEM		ANNUAL DATA				QUARTERLY DATA							
						1984				1985			
		1981	1982	1983	1984	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q
(A) ACETATE				**(N) NYLON***				**(P) POLYESTER**				**(O) OLEFIN**	
HOSIERY[a]	N	107.0	92.3	104.3	101.5	27.8	25.6	24.1	24.0	25.2			
OTHER CIRCULAR KNIT[a]	N	48.2	25.7	24.5	17.6	4.2	5.1	4.5	3.8	3.1			
	P	345.6	228.4	293.7	174.7	55.7	42.0	33.8	43.2	33.0			
	A	3.6	1.6	2.1	2.3	0.4	1.0	0.6	0.3	0.3			
FLAT KNIT	A	98.7	71.7	79.1	67.2	18.1	19.8	15.1	14.2	15.5			
	N	163.2	130.8	162.2	135.2	40.4	33.0	29.4	32.4	36.0			
	P	98.4	87.0	116.6	137.3	32.7	36.0	34.0	34.6	37.1			
CARPET FACE	N	633.6	559.5	734.6	770.2	191.1	197.7	191.3	190.1	163.9			
	O	89.5	90.0	147.2	154.1	33.7	36.2	39.1	45.1	44.8			
CARPET BACKING[g]	O	195.3	184.7	196.8	227.8	48.1	53.0	51.6	75.1	97.3			
OTHER BROAD WOVEN*	A	110.7	88.8	113.6	108.8	29.8	30.5	27.2	21.3	19.5			
	N	89.2	82.2	83.6	90.7	20.5	24.7	23.9	21.6	16.9			
	P	440.2	367.0	489.9	392.2	104.8	93.9	92.5	101.0	96.4			
	O	200.7	172.5	201.1	190.3	47.4	50.5	43.8	48.6	54.6			
NARROW WOVEN[f]	A	8.6	2.9	1.7	0.7	0.1	0.3	0.3	-	0.1			
	N	34.0	30.2	35.3	39.9	10.8	10.1	9.2	9.8	7.8			
	P	28.1	29.1	35.5	36.7	8.6	8.8	10.2	11.1	9.6			
	O	12.6	12.1	15.0	14.9	3.7	3.8	3.8	3.6	3.8			
TIRES, INCL. CHAFER	N	204.7	147.9	145.5	172.9	42.4	45.5	38.6	46.4	42.7			
	P	174.8	168.9	174.1	174.4	44.6	44.5	44.8	40.5	44.5			
OTHER RUBBER INDUSTRY[a]	N	25.7	17.3	16.3	20.9	5.1	5.6	5.5	4.7	4.6			
	P	35.1	26.7	27.8	32.7	8.1	9.9	7.8	6.9	7.2			
ROPE, CORDAGE & FISHLINE	N	30.6	29.1	31.7	35.0	8.7	9.9	8.4	8.0	8.6			
	P	15.8	14.4	12.2	15.7	4.5	3.9	3.5	3.8	3.1			
	O	92.1	84.8	95.5	106.9	26.4	27.9	23.1	27.5	28.8			
ALL OTHER[h]	A	4.7	4.0	1.1	1.1	0.3	0.3	0.2	0.3	0.4			
	N	68.1	50.6	54.4	54.2	14.1	13.5	14.0	12.6	13.9			
	P	292.0	214.3	144.6	179.2	32.9	47.1	50.2	48.9	59.2			
	O	38.1	32.9	41.0	31.6	8.0	8.8	8.2	6.6	7.8			
TOTAL ABOVE	**A**	**226.3**	**169.0**	**197.6**	**180.1**	**48.7**	**51.9**	**43.4**	**36.1**	**35.8**			
	N	**1404.3**	**1165.6**	**1392.4**	**1438.1**	**365.1**	**370.7**	**348.9**	**353.4**	**322.7**			
	P	**1430.0**	**1134.8**	**1294.4**	**1144.9**	**291.9**	**296.1**	**276.9**	**290.0**	**290.1**			
	O	**626.3**	**577.0**	**696.5**	**725.6**	**169.3**	**180.2**	**169.6**	**206.5**	**237.1**			
TOTAL DOMESTIC		**3686.9**	**3046.4**	**3502.0**	**3488.7**	**875.0**	**898.9**	**838.8**	**886.0**	**885.7**			
ALSO DIVIDED AS													
APPAREL		1530.0	1128.2	1257.5	1072.1	278.1	308.8	244.0	241.2	251.8			
HOME FURNISHINGS		1129.4	1016.6	1328.7	1354.2	335.3	305.5	339.9	373.5	364.8			
INDUSTRIAL		1029.5	901.6	996.8	1062.4	261.6	274.6	254.9	271.3	269.1			
SHIPMENTS OF FEED & PRODUCER-TEXTURED YARN (NONCARPET)													
NYLON		159.6	122.3	127.1	118.7	31.3	30.4	28.1	28.9	28.4			
POLYESTER		991.3	737.9	832.4	675.5	173.6	162.1	161.7	178.1	181.0			
OLEFIN		33.5	26.8	28.0	23.3	5.9	5.8	6.9	4.7	5.2			

* Includes Aramid in 1981 and 1982.

a. Filament yarn plus monofilament shipments by primary trade or end use; olefin includes spunbonded polypropylene but does not include spunbonded polyethylene.

b. Small poundages of polyester are included in All Other.

c. Small poundages of olefin are included in All Other.

d. Small poundages of nylon and polyester are included in All Other.

e. Other Broad Woven except carpets, tire fabric, flat belting, etc. The olefin poundages include other home furnishings applications only, i.e., industrial applications are in All Other.

f. Narrow Woven includes apparel ribbons and braids, auto seat belts and/or furniture webbing.

g. Small poundages of olefin are included in All Other.

h. All Other includes sewing thread and other industrial applications. The olefin poundages includes sliver knit backing. Also includes indirect exports.

i. These poundages are included in the Total Domestic area above.

TABLE 12: STAPLE + TOW DOMESTIC SHIPMENTS

MILLION POUNDS

ITEM		ANNUAL DATA				1984				QUARTERLY DATA 1985			
		1981	1982	1983	1984	1st Q	2nd Q	3rd	4th Q	1st Q	2nd Q	3rd Q	4th Q
(R) RAYON	(N) NYLON*		(A) ACRYLIC + MODACRYLIC					(P) POLYESTER		(O) OLEFIN			
HOSIERY, SWEATERS & CRAFT YARNS[a]	A	255.6	230.5	237.3	204.8	54.4	57.1	48.5	44.8	48.8			
	NPR	8.9	8.8	9.5	6.6	1.4	1.6	1.8	1.8	1.7			
PILE FABRICS[b]	A	44.7	36.4	33.0	30.0	8.3	8.9	7.0	5.8	6.6			
	P	14.9	15.6	18.2	18.4	4.8	5.0	4.6	4.0	3.9			
OTHER CIRCULAR + FLAT KNIT[c]	R	10.9	5.7	3.5	4.3	1.2	0.6	1.2	1.3	0.7			
	A	91.6	112.6	129.5	118.5	32.0	35.0	31.0	20.5	27.3			
	P	300.7	288.8	354.4	283.0	77.6	76.5	67.5	61.4	67.8			
BLANKETS[d]	A	28.1	23.7	27.1	25.2	6.9	5.5	6.7	6.1	6.1			
	P	14.8	12.0	10.5	5.5	1.4	1.4	1.5	1.2	0.9			
OTHER BROAD WOVEN	R	224.7	146.6	182.1	177.7	48.9	42.8	43.2	42.8	39.0			
	N	52.4	56.4	59.0	42.5	12.3	11.0	8.9	10.3	11.4			
	A	33.0	25.7	32.5	29.5	9.4	7.4	5.6	7.1	9.8			
	P	1107.0	889.0	1062.9	1039.1	272.6	270.6	258.3	237.6	214.5			
	O	17.1	16.1	19.4	22.1	5.7	5.3	5.3	5.8	6.4			
CARPET FACE YARNS	R	0.3	0.1	0.2	0.3	0.2	+	0.1	+	0.1			
	N	617.4	594.4	815.2	751.0	184.6	196.1	179.2	181.1	176.5			
	A		Included In All Other										
	P	124.0	114.7	139.0	131.4	31.2	35.6	32.0	32.6	30.7			
	O	67.5	76.8	93.6	96.5	22.4	25.2	23.9	25.0	25.2			
FIBERFILL[e]	P	226.7	228.4	275.4	276.1	69.2	65.9	65.4	75.6	72.6			
FLOCK	NP	13.0	10.2	10.6	9.2	2.3	2.3	2.2	2.4	1.4			
	R	5.6	3.1	3.2	2.7	0.7	0.7	0.7	0.6	0.6			
NONWOVENS[f]	R	124.6	111.9	119.0	126.3	33.8	32.4	32.0	28.1	27.6			
	N	3.5	3.8	4.9	2.8	0.9	0.6	0.7	0.6	0.7			
	P	149.3	155.2	177.4	177.2	44.6	46.7	42.9	43.0	44.0			
	VINYON + O	42.7	39.0	61.5	119.2	25.2	29.6	32.5	31.9	34.0			
ALL OTHER	R	29.1	24.3	23.8	18.8	5.5	5.6	3.8	3.9	5.5			
	N	10.3	7.7	5.2	9.4	1.1	0.9	3.6	3.8	2.8			
	A	41.1	29.0	32.8	38.7	9.6	10.3	8.9	9.9	7.7			
	P	60.6	57.8	55.8	56.2	11.7	24.5	7.8	12.2	20.5			
	VINYON + O	4.7	7.0	8.9	3.1	0.4	0.9	1.0	0.8	1.6			
TOTAL ABOVE	**R**	**496.9**	**293.7**	**333.5**	**331.9**	**90.7**	**82.5**	**81.6**	**77.1**	**73.8**			
	N	**696.4**	**673.3**	**897.1**	**814.4**	**211.1**	**210.6**	**194.5**	**198.2**	**192.8**			
	A	**494.1**	**457.9**	**492.2**	**446.7**	**120.6**	**124.2**	**107.7**	**94.2**	**103.3**			
	P	**2005.4**	**1767.5**	**2099.2**	**1992.2**	**514.2**	**527.7**	**481.3**	**469.0**	**456.3**			
	VINYON + O	**132.0**	**118.9**	**183.4**	**240.9**	**53.7**	**61.0**	**62.7**	**63.5**	**67.2**			
TOTAL DOMESTIC		**3724.8**	**3331.3**	**4005.4**	**3826.1**	**990.3**	**1006.0**	**927.8**	**902.0**	**895.4**			
ALSO DIVIDED AS													
APPAREL		1487.5	1321.7	1461.3	1277.1	341.1	349.9	310.3	275.8	289.2			
HOME FURNISHINGS		1442.9	1266.4	1630.0	1559.0	404.7	406.1	375.1	373.1	365.9			
INDUSTRIAL		794.4	743.2	914.1	992.1	244.5	250.0	242.4	253.1	240.3			

* 1981 and 1982 poundages include Aramid.

a. Olefin poundages are included in All Other.

b. Rayon and nylon poundages are included in All Other.

c. Nylon poundages are included in All Other.

d. Rayon and acrylic poundages are included in All Other.

e. Wet & dry laid and needled batts only.

f. Acrylic poundages are included in All Other.

TRADE BAROMETER

MAN-MADE FIBER TRADE BALANCE RISES

The U.S. man-made fiber net-export balance of trade rose to 47.6 million pounds in April, up from the 35.6 million pound export balance in March.

Exports of fiber in April totaled 70.6 million pounds, up 6% from the 66.7 million pounds exported in March. Imports of fiber declined to 23.1 million pounds in April, down 26% from the 31.1 million pounds imported in March.

APRIL DETAIL

The net-export trade balance in noncellulosic staple+tow rose 2% in April to 24.9 million pounds, while the net-export balance in noncellulosic yarn+monofilament increased by 85% to 18.9 million pounds.

In April, the noncellulosic staple+tow balance of trade rose, as exports declined nearly 3% and imports dropped by almost 20%.

The balance of trade for noncellulosic yarn increased dramatically, as exports rose 30% and imports fell 25%.

Products to note in April —

- *Polyester textured yarn.* Exports rose by 132%.
- *Polyester staple+tow.* Imports rose by 37%.
- *Nylon other yarn.* Imports rose by 47%.

NOTE ABOUT MANUFACTURES TRADE DATA

Due to substantial revisions and additions to the U.S. Census TSUSA commodity number system, there will not be a listing of trade data for manufactures this month. As soon as changes are implemented the manufactures trade data will again appear in the ORGANON.

TABLE 13: MAN-MADE FIBER MONTHLY TRADE BALANCE DETAIL

MILLION POUNDS

COMMODITY	1984										1985			
	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
CELLULOSIC YARN + MONOFILAMENTS	0.4 I	0.4 E	0.6 I	0.3 E	0.6 I	1.1 I	0.1 I	0.1 E	0.1 I	1.2 I	0.3 I	0.7 I	0.3 E	+
CELLULOSIC STAPLE + TOW	7.7 E	5.8 E	2.9 E	6.2 E	2.2 E	2.9 E	1.7 E	1.9 E	1.1 E	3.1 E	1.6 E	0.8 E	2.2 E	3.7 E
NONCELLULOSIC YARN + MONOFILAMENTS	13.5 E	10.1 E	8.3 E	12.4 E	8.2 E	14.8 E	19.1 E	10.6 E	14.7 E	19.6 E	14.5 E	12.2 E	10.2 E	18.9 E
NONCELLULOSIC STAPLE + TOW	23.4 E	16.7 E	16.8 E	24.3 E	10.7 E	37.4 E	31.0 E	22.1 E	38.7 E	40.4 E	45.0 E	16.6 E	23.4 E	24.9 E
CELLULOSIC WASTE	0.6 E	+	0.1 E	+	0.1 I	0.1 E	0.2 E	0.1 I	0.2 E	0.1 E	+	+	0.2 E	0.1 E
NONCELLULOSIC WASTE	5.0 E	3.4 E	7.2 E	9.8 E	4.1 I	3.5 E	4.0 E	2.0 E	2.1 E	5.0 E	3.2 E	2.8 I	0.7 I	+
TOTAL	49.8 E	36.4 E	34.7 E	53.0 E	16.3 E	57.8 E	55.9 E	36.6 E	58.7 E	67.0 E	64.8 E	26.1 E	35.8 E	47.6 E

I means net-import balance.
E means net-export balance.

TABLE 14: SELECTED U.S. MAN-MADE FIBER IMPORTS FOR CONSUMPTION BY COUNTRY OF ORIGIN

THOUSAND POUNDS

ITEMS & COUNTRY	1985 JAN	FEB	MAR	APR	MAY	JUN	YEAR TO DATE 1985	1984
CELLULOSIC YARN, MONOFIL & STRIPS								
CANADA	120	131	140	185			576	426
MEXICO	33	40	36	138			247	379
FRANCE	27	0	0	30			57	22
GERMANY, FED. REP. OF	686	424	358	169			1637	1693
NETHERLANDS	77	76	84	145			382	165
JAPAN	96	73	10	66			245	245
REP. OF KOREA	0	0	0	22			22	100
ALL OTHER COUNTRIES[a]	71	60	112	91			334	109
TOTAL CELLULOSIC YARN	**1110**	**804**	**740**	**846**			**3500**	**3139**
CELLULOSIC STAPLE + TOW								
CANADA	788	662	561	548			2559	2996
AUSTRIA	62	88	19	20			189	961
SWEDEN	314	368	271	595			1548	878
UNITED KINGDOM	162	268	180	53			663	408
JAPAN	20	32	59	92			203	459
ALL OTHER COUNTRIES[b]	35	0	323	0			258	43
TOTAL CELLULOSIC STAPLE + TOW	**1381**	**1418**	**1313**	**1308**			**5420**	**5745**
NONCELLULOSIC YARN, MONOFIL & STRIPS								
CANADA	962	716	939	1085			3702	6717
COSTA RICA	0	0	30	0			30	0
MEXICO	624	588	923	566			2701	6173
AUSTRIA	83	109	89	126			407	113
BELGIUM	205	434	949	519			2127	62
FRANCE	582	441	320	314			1757	683
GERMANY, FED. REP. OF	1676	1879	2645	1170			7370	5435
ITALY	1528	911	925	258			3622	1565
NETHERLANDS	90	1	37	54			185	192
SPAIN	1	0	.	0			1	322
SWITZERLAND	35	26	32	14			107	240
UNITED KINGDOM	591	612	807	575			2585	1190
ISRAEL	78	274	98	182			632	310
JAPAN	584	793	473	875			2725	5703
REP. OF KOREA	3	1	1	4			9	158
TAIWAN	9	1	21	19			50	218
ROMANIA	88	0	0	0			88	197
SOUTH AFRICA	286	209	1618	986			3099	1472
ALL OTHER COUNTRIES	242	290	184	748			1464	275
TOTAL NONCELLULOSIC YARN	**7770**	**7305**	**10091**	**7495**			**32661**	**31025**
NONCELLULOSIC STAPLE - TOW								
BRAZIL	278	415	935	0			1628	416
CANADA	1640	2153	1296	2287			7376	4292
COSTA RICA	86	330	187	260			863	995
MEXICO	1111	433	772	345			2661	7822
BELGIUM	127	85	12	67			291	172
FRANCE	920	1032	923	621			3496	2336
GERMANY, FED. REP. OF	1656	1970	1670	1456			6752	8215
ITALY	527	411	2448	481			3867	4726
NETHERLANDS	74	27	67	29			197	367
SWITZERLAND	18	146	11	71			246	193
UNITED KINGDOM	740	1267	879	847			3753	5190
ISRAEL	0	1	55	77			133	103
JAPAN	1154	1247	1567	1982			5950	4713
REP. OF KOREA	37	170	165	928			1300	222
TAIWAN	1301	1033	2115	865			5314	4138
ROMANIA	83	88	95	36			302	1023
SOUTH AFRICA	49	131	0	25			205	295
ALL OTHER COUNTRIES[c]	42	101	44	190			378	569
TOTAL NONCELLULOSIC STAPLE - TOW	**9844**	**11060**	**13381**	**10567**			**44712**	**45777**

+ means a nominal poundage.

Other Countries supplying 1985 poundages are:

a. Brazil 260, Hong Kong 2, Ireland 34, People's Republic of China 1, Sweden 1, and United Kingdom 36.

b. Fed. Rep. of Germany 34, Finland 69, France 7, Italy 2, Netherlands 1, and Taiwan 145.

c. Australia 30, Brazil 117, Denmark 34, German Dem. Rep. 14, Hong Kong 1, Iran 31, Ireland 64, Morocco 11, Norway 143, People's Republic of China - Singapore 14, Sweden 74, Turkey 17, and Yugoslavia 914.

d. Australia 82, Austria 54, Denmark 92, Iceland 25, Ireland 41, Jordan 13, Philippines - Spain 1, Sweden 24, Turkey 7, and Yugoslavia 39.

TABLE 15: U.S. MAN-MADE IMPORTS FOR CONSUMPTION

THOUSAND POUNDS

ITEM	COMMODITY NUMBER AS OF 1/1/79	1985 JAN	FEB	MAR	APR	MAY	JUN	YEAR TO DATE 1985	1984
CELLULOSIC FIBERS									
YARN-SINGLES									
TEXTURED	310.0106 & .0206	0	0	38	41			79	117
OTHER	310.0130 & .0230*	1105	751	697	726			3279	2960
MONOFILAMENTS	309.0310 & .0610	0	17	1	0			18	2
STRIPS, $1 LB & UNDER	309.2000*	5	36	4	79			124	60
SUBTOTAL ABOVE		**1110**	**804**	**740**	**846**			**3500**	**3139**
STAPLE	309.4320 & .4325	1319	1255	1255	1186			5015	5265
GROUPED FILAMENTS	309.3010 & .3110	62	163	58	122			405	480
SUBTOTAL ABOVE		**1381**	**1418**	**1313**	**1308**			**5420**	**5745**
WASTE, ADVANCED & NOT ADVANCED	309.6500 & .7510*	96	73	0	41			210	156
NONCELLULOSIC FIBERS									
YARN-SINGLES									
TEXTURED - NYLON	310.0109 & .0209	2115	1670	2496	1646			7927	6685
- POLYESTER	310.0110 & .0210	654	758	2492	1531			5435	3689
- OTHER	310.0114 & .0214	1157	1238	1081	816			4292	2517
OTHER - NYLON	310.0149 & .0249	2037	1819	1450	2132			7438	9250
- POLYESTER	310.0150 & .0250	1336	1326	2183	838			5683	6108
- OTHER	310.0170 & .0270*	179	243	140	182			744	1067
MONOFILAMENTS	309.0200 & .0330*	240	133	190	238			801	1326
STRIPS, OVER $1 LB	309.2100 & .2500*	52	118	59	112			341	373
SUBTOTAL ABOVE		**7770**	**7305**	**10091**	**7495**			**32661**	**31025**
STAPLE - NYLON	309.4308	2329	1897	4525	2186			10937	11556
- POLYESTER	309.4342	1623	2018	1854	2551			8046	9644
- ACRYLIC	309.4345	1392	967	1073	1089			4521	4548
- OLEFIN	309.4346	38	169	270	355			832	1048
- OTHER	309.4355	1838	1645	2997	894			7374	5256
GROUPED FILAMENTS									
NYLON	309.3030 & .3130	1742	3045	1957	2013			8757	3171
POLYESTER	309.3040 & .3140	372	335	188	270			1165	2457
ACRYLIC	309.3050 & .3150	440	832	273	916			2461	2517
OTHER	309.3065 & .3165	70	152	104	293			619	580
SUBTOTAL ABOVE		**9844**	**11050**	**13241**	**10567**			**44712**	**45777**
WASTE, NOT ADVANCED									
- NYLON	309.6625	3094	4321	3549	1975			12939	10842
- POLYESTER	309.6630	445	950	1386	435			3216	2840
- ACRYLIC	309.6645	-	0	10	20			30	38
- OTHER	309.6660	12	197	169	37			415	1059
NOILS & GARNETTED FIBERS	309.6000 & .7000*	0	0	62	31			93	130
OTHER WASTE, ADVANCED	309.7525 - .7555	44	368	498	334			1244	883
SUBTOTAL ABOVE		**3595**	**5836**	**5674**	**2832**			**17937**	**15802**
TOTAL MAN-MADE ABOVE		**23796**	**26486**	**31059**	**23086**			**104440**	**101644**
OTHER MAN-MADE FIBER TOPS, YARN & THREAD									
YARN-PLIED									
TEXTURED- CELLULOSIC	310.1106	0	0	-	1			1	-
NONCELLULOSIC	310.1015* & .1109*	1106	865	740	248			2759	4349
OTHER - CELLULOSIC	310.1030 & .1135*	48	18	17	6			89	30
- NONCELLULOSIC	310.1050 & .1070*	346	503	337	392			1578	575
SPUN YARN - CELLULOSIC	310.4005 & .4030*	83	143	119	110			455	383
- OTHER	310.4015 & .4027*	2643	1623	2810	2749			9825	9488
OTHER YARNS-NES, INCL. CHENILLE	310.6029-.8000	682	296	626	250			1854	397
HANDWORK YARNS & SEWING THREAD	310.9000-.9140	451	462	739	513			2485	1420
SLIVER, TOPS & ROVING	309.9000	205	241	410	131			987	2591
TEXTILE GLASS FIBER	309.2800 & .2900*	2454	1486	3565	3438			10953	9586
GRAND TOTAL ABOVE		**31814**	**31943**	**40422**	**31247**			**135426**	**130443**

SOURCE: U.S. Census Bureau Report IM145X.
NES - Not elsewhere specified.

* Theses items are not reported by the Census as cellulosic vs. noncellulosic. Any separation between cellulosic and non-cellulosic is estimated, based mainly on average declared value.

a. Also includes 310.0510 & .0610.
b. Also includes 309.6615.
c. Also includes 310.0530, .0550, .0630 & .0650.
d. Also includes 309.0340, .0365, .0500, .0630, .0640 & .0665.
e. There may be some acetate yarn in these data, but the Census figures do not permit a segregation.
f. Also includes 310.1110 & .1114.
g. Also includes 310.2010 & .2110.
h. Also includes 310.1150, .1155, .1170, .2030, .2050, .2130 & .2150.
i. Also includes 310.5005 & .5030.
j. Also includes 310.4046, .4047, .4050, .5015, .5046, .5047, .5049 & .5051.
k. Chiefly roving. Also includes 309.9800 & .9900.

M

TABLE 16: U.S. EXPORTS OF MAN-MADE FIBERS

THOUSAND POUNDS

ITEM	COMMODITY NUMBER	1985 JAN	FEB	MAR	APR	MAY	JUN	YEAR TO DATE 1985	1984
CELLULOSIC FIBERS	AS OF 1/1/78								
FILAMENT YARN[a]									
TEXTURED	310.0006	0	4	30	4			38	25
OTHER[b]	310.0026	811	117	971	765			2664	5145
MONOFILAMENTS	309.0110	0	0	0	60			60	2
STRIPS	309.2210	0	7	0	0			7	56
SUBTOTAL ABOVE		**811**	**128**	**1001**	**829**			**2769**	**5228**
STAPLE+TOW-RAYON	309.4222	2925	2042	3375	4870			13212	22161
STAPLE-ACETATE	309.4219	12	133	140	133			418	741
SUBTOTAL ABOVE		**2937**	**2175**	**3515**	**5003**			**13630**	**22902**
WASTE, ADVANCED & NOT ADVANCED	309.7400	**72**	**119**	**161**	**113**			**465**	**859**
NONCELLULOSIC FIBERS									
NYLON - TEXTURED	310.0008 & .0009	2478	2450	2480	2073			9481	13758
- HIGH TENACITY[c]	310.0027	4921	6044	6255	5527			22747	21467
- OTHER	310.0029	883	1002	954	824			3663	5152
POLYESTER-TEXTURED	310.0010	7465	5968	5803	13481			32717	18999
- HIGH TENACITY[c]	310.0032	865	795	641	946			3247	3050
- OTHER[d]	310.0034	2458	102	422	295			3277	2029
OTHER - TEXTURED	310.0014	264	588	1152	258			2262	2120
- OLEFIN	310.0040	52	5	61	18			136	106
- OTHER	310.0044	557	572	607	711			2447	1978
MONOFILAMENTS, ALL DENIERS									
NYLON	309.0120	231	195	189	136			751	842
POLYESTER[e]	309.0140	667	434	470	472			2043	993
OTHER	309.0170	1060	996	908	1335			4299	3989
STRIPS	309.2220 & .2270	427	339	346	316			1428	1525
SUBTOTAL ABOVE		**22328**	**19490**	**20288**	**26392**			**88498**	**76008**
STAPLE - NYLON	309.4240	1180	471	783	1269			3703	5801
- POLYESTER	309.4242	23227	9880	18988	16125			68220	40273
- ACRYLIC	309.4245	21821	12541	11117	11634			57113	47903
- OLEFIN	309.4246	1039	261	620	442			2362	951
- OTHER	309.4247	755	875	890	775			3295	3059
GROUPED FILAMENTS									
NYLON	309.3220	211	95	51	142			499	1236
POLYESTER[d]	309.3240	3251	1302	2292	2519			9364	13998
ACRYLIC	309.3250 & .3255	3372	2291	1957	2543			10163	10252
SUBTOTAL ABOVE		**54856**	**27716**	**36698**	**35449**			**154719**	**123472**
WASTE, ADVANCED & NOT ADVANCED									
- NYLON	309.7620	303	196	237	297			1033	4374
- POLYESTER	309.7630	4721	2235	3165	1606			11727	15959
- ACRYLIC	309.7640	419	214	716	111			1460	1424
- OTHER	309.7660	1405	342	873	803			3423	4936
SUBTOTAL ABOVE		**6848**	**2987**	**4991**	**2817**			**17643**	**26693**
TOTAL MAN-MADE FIBER ABOVE		**87852**	**52615**	**66654**	**70603**			**277724**	**189872**
TEXTILE GLASS FIBER	309.2700 & .9700	7000	3868	7463	5183			23514	16096
GRAND TOTAL ABOVE		**94852**	**56483**	**74117**	**75786**			**301238**	**205968**

SOURCE: U.S. Census Bureau Report EM546

a. Includes thrown, singles and plied yarn.
b. Includes an undetermined amount of rayon tire cord and cord fabric.
c. Includes an undetermined amount of noncellulosic tire cord and cord fabric.
d. Includes zero twist yarns.
e. These data are obviously incorrect because of misclassification. Most of these poundages should be included with filament yarn.

3

TABLE 17: SELECTED U.S. MONTHLY TEXTILE FIBER DATA

MILLION POUNDS

	1985						YEAR TO DATE [a]	
	JAN	FEB	MAR	APR	MAY	JUN	1985	1984
MAN-MADE FIBER DATA[c]	**TOTAL SHIPMENTS[b]**							
YARN + MONOFILAMENTS[d]								
ACETATE	**14.3**	**14.1**	**14.5**	**16.0**	**16.3**		**75.2**	**92.6**
NYLON[e] - INDUSTRIAL[f]	32.1	31.0	33.1	27.6	28.7		152.5	156.6
- LOW DENIER INDUSTRIAL[g]	2.3	2.2	2.0	2.2	1.9		10.6	14.7
- CARPET	57.1	51.9	59.5	69.2	72.7		310.4	340.8
- TEXTILE	30.5	27.0	27.5	27.8	27.9		140.7	160.0
POLYESTER - INDUSTRIAL[f]	26.4	24.5	25.3	26.4	25.4		128.0	132.0
- LOW DENIER INDUSTRIAL[g]	1.6	1.6	1.4	2.0	2.0		8.6	10.3
- TEXTILE	69.5	75.6	81.9	89.6	89.3		405.9	367.9
OLEFIN[h]	78.0	79.9	82.8	86.0	89.1		415.8	293.8
TOTAL NONCELLULOSIC ABOVE[i]	**297.5**	**293.7**	**313.5**	**330.8**	**337.0**		**1572.5**	**1476.1**
STAPLE + TOW + FIBERFILL[j]								
RAYON	**29.0**	**25.0**	**27.7**	**30.0**	**30.5**		**142.2**	**170.4**
NYLON[e]	70.5	60.6	65.0	67.9	71.2		335.2	373.1
ACRYLIC + MODACRYLIC	51.5	55.0	57.8	54.9	56.7		275.9	284.0
POLYESTER	162.4	169.5	175.4	177.4	183.8		868.5	938.0
OLEFIN + VINYON	21.4	23.1	23.7	24.5	26.0		118.7	97.6
TOTAL NONCELLULOSIC ABOVE	**305.8**	**308.2**	**321.9**	**324.7**	**337.7**		**1598.3**	**1692.7**
YARN + MONOFILAMENTS	**END-OF-MONTH STOCK**							
ACETATE	**13.1**	**13.3**	**14.3**	**14.8**	**14.9**		**14.9**	**11.8**
NYLON[e] - INDUSTRIAL[f]	28.8	30.6	29.4	32.0	27.5		27.5	21.3
- LOW DENIER INDUSTRIAL[g]	6.2	6.2	6.1	6.1	5.8		5.8	5.9
- CARPET	68.0	69.5	71.1	58.2	51.9		51.9	60.4
- TEXTILE	43.1	45.0	47.7	47.5	46.6		46.6	37.2
POLYESTER - INDUSTRIAL[f]	24.3	23.2	23.9	24.3	26.2		26.2	18.5
- LOW DENIER INDUSTRIAL[g]	2.8	2.7	2.8	2.9	3.8		3.8	3.8
- TEXTILE	79.7	81.6	81.2	80.6	71.2		71.2	85.1
OLEFIN[h]	62.0	64.3	65.9	64.7	63.3		63.3	60.1
TOTAL NONCELLULOSIC ABOVE[i]	**314.9**	**323.1**	**328.1**	**316.3**	**296.3**		**296.3**	**292.3**
STAPLE + TOW + FIBERFILL								
RAYON	**30.3**	**31.3**	**32.4**	**31.1**	**29.5**		**29.5**	**27.5**
NYLON[e]	69.7	72.4	74.1	71.1	70.2		70.2	72.8
ACRYLIC + MODACRYLIC	76.6	75.0	76.1	77.2	75.7		75.7	78.1
POLYESTER	191.8	192.6	186.9	187.6	187.7		187.7	178.0
OLEFIN + VINYON	26.1	25.1	24.1	25.5	24.3		24.3	20.7
TOTAL NONCELLULOSIC ABOVE	**364.2**	**365.1**	**361.2**	**361.4**	**357.9**		**357.9**	**349.6**
WOOL & COTTON CONSUMPTION								
APPAREL CLASS WOOL	9.6	9.3	13.0	10.9			42.8	58.0
CARPET CLASS WOOL	1.2	1.1	1.7	1.1			5.1	3.7
TOTAL RAW WOOL	10.8	10.4	14.7	12.0			47.9	61.7
RAW COTTON	176.2	193.8	283.2	223.4			876.6	965.5

a. Year-to-date totals except for stock, which is the latest month's data.
b. The monthly production of each fiber may be calculated as total shipments plus a stock increase, or less a stock decrease, over the month.
c. Producers' total domestic plus export shipments.
d. Rayon yarn data are available annually only; see page 43 of the March 1985 issue.
e. Data for nylon exclude aramid.
f. Industrial is defined as 500 denier and coarser with an Instron tenacity of 7 grams or more per denier.
g. Low denier industrial is defined as finer than 500 denier with an Instron tenacity over 5.5 grams per denier.
h. Olefin yarn + monofilaments also includes spunbonded polypropylene and film fiber produced for textile end uses.
i. Saran and spandex data are not included in these totals. See page 43 of the March 1985 issue for annual data on these yarns.
j. Acetate staple + tow data are available annually only; see page 43 of the March 1985 issue.